SRE-2000

ELECTRA-RIDE™ ELITE STAIRWAY ELEVATOR

COMMERCIAL

Technical Service email: service@bruno.com
www.bruno.com

DEALER:

INSTALLATION MANUAL

MAN-2000-1
11-14-2007

1780 EXECUTIVE DR., P.O. BOX 84, OCONOMOWOC, WI 53066 USA
TELEPHONE:(262) 567-4990
FAX: (262) 953-5501
1-800-882-8183

IMPORTANT NOTES

NOTE: Please locate the **metal templates** for drilling the mounting holes for the lower charge bracket.

This stairway elevator is
FOR INDOOR USE ONLY
in enclosed heated locations
above 35°F (2°C).

The warranty for the Electra-Ride™ Elite Stairway Elevator is
rendered null and void
if the unit is installed by
anyone other than an authorized Bruno dealer.

Electra-Ride™ Elite is a trademark of Bruno Independent Living Aids, Inc.®

TABLE OF CONTENTS

Important Notes 2
Regulatory Information 4
Specifications 5
Carton Contents 7
Tools Needed for Installation 8
INSTALLATION
- Fitting the Rail 9
- Application Guide 10-11
- Distinguishing Between Right- and Left-Hand Charge Bumper Brackets . . 12
- Cutting the Rail and Installing Lower Bumper 13-14
- Placing the Rail Clamps and Rail Sections 15-19
- Routing the Cable 20
- Mounting the Carriage, Upper Bumper and Upper End Cap 21
- Adjusting the Carriage Angle 22
- Mounting the Footrest Assembly 23
- Mounting the Seat Assembly 24-25
- Mounting the Final Limit Ramp Kit 26

ELECTRICAL
- Circuit Breaker 21
- Infrared Call/Send Transmitter 27
- Mounting the Commercial Call/Send Transmitters 28
- Testing the Call/Send Transmitters 29
- Circuit Board Diagnostics 30-31
- Learning the IR Transmitter 32-33
- Battery Charger 34-35

LUBRICATION 36
TESTING ELEVATOR OPERATION 37
CONVERSION TO RIGHT-HAND INSTALLATION
- Electrical and Mechanical Operations 38-39
- Changing the Rocker Switch to the Left Arm 40

ADJUSTMENTS
- Seat Height Adjustment 41
- Speed Control Adjustment 41

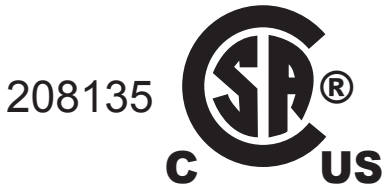
MAINTENANCE
- Vacation/Long-Term Storage 42
- Yearly Maintenance Operations 43

OVERSPEED 44
WIRING SCHEMATIC 45
TROUBLESHOOTING 46-47
EXPLODED VIEWS 48-54
WARRANTY 55

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

REGULATORY INFORMATION

CSA CERTIFICATION



The "C" and "US" indicators adjacent to the CSA Mark signify that the product has been evaluated to the applicable CSA and ANSI/UL Standards, for use in Canada and the U.S., respectively. This "US" indicator includes products eligible to bear the "NRTL" indicator. NRTL, i.e. National Recognized Testing Laboratory, is a designation granted by the U.S. Occupational Safety and Health Administration (OSHA) to laboratories which have been recognized to perform certification to U.S. Standards.

Installation of this lift is intended to be conducted in accordance with applicable sections of ANSI/ASME A18.1 and the National Electric Code NFPA 70.

MATERIAL SAFETY DATA SHEETS

Material safety data sheets (MSDS) on materials used on this unit may be requested through the Bruno Technical Service Department.

STAIRWAY ELEVATOR SPECIFICATIONS

Weight Capacity:	400 lbs. (181 kg)
Variable Speed:	0 to 28 feet per minute (0 to 8.5 m/min)
Power Source:	two (2) 12-volt sealed, maintenance-free batteries with 24-volt continuous-duty charger
Motor:	24 VDC, 2-pole, 1.02 hp
Drive:	self-locking gearbox, rack-and-pinion drive
Control:	constant pressure (armrest and 2 transmitters)
Brake:	self-locking worm gear
Maximum incline:	45 degrees
Rail:	vertical aluminum plate with integral drive gear rack
Seat Swivel:	0, 30, 60 and 90 degrees at top and bottom
Power Supply:	24 VDC battery charger powered by 120 V wall outlet

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

INTRODUCTION

Thank you for purchasing a Bruno SRE-2000C ELECTRA-RIDE™ ELITE STAIRWAY ELEVATOR.

Be sure to check the carton contents for shipping damage as soon as the cartons are received.

Also, verify the contents against the packing list **BEFORE** leaving the shop for the installation site.

Report any discrepancies to Bruno Independent Living Aids *immediately* by calling 1-800-882-8183.

Reading through the installation manual before installing the Stairway Elevator will help you install the unit more quickly and avoid the frustration of arriving at the installation site only to discover that you are missing a critical tool or piece of equipment.

Best wishes to you and your customer.

CHECK TO BE SURE THAT YOU HAVE ALL OF THE COMPONENTS BEFORE BEGINNING AN INSTALLATION.

CHECK CARTON CONTENTS FOR SHIPPING DAMAGE IMMEDIATELY UPON RECEIPT. Damage claims must be filed within 21 days by the Dealer, not the Manufacturer. Bruno Independent Living Aids cannot be responsible for shipping damage.

The ***ELECTRA-RIDE™ ELITE*** is shipped in **5 or 6 cartons** (depending upon the number of rails ordered)**.**

For specific part numbers and quantities of the components indicated below, please refer to the pertinent exploded view and bill of materials at the back of this manual.

CARRIAGE BOX

complete carriage assembly with jumper
remote control box

INSTALLATION BOX

BOX A

front clamps**,** clamp spacers and shims, screws, nuts/bolts/ washers, rail joint hardware kit

BOX B

rear clamps, grease tube, charge cable kit
bumper assembly #1
bumper assembly #2
final limit assembly
right rail end cap and left rail end cap

SEAT BOX

battery charger assembly
seat assembly
footrest assembly
front cover assembly
charger mounting strap, plate and screws

RAIL BOX

rail with cable channel (section 1 of 2/3)

RAIL BOX WITH JOINT PLATE

rail with cable channel (section 2 of 2/3)

RAIL BOX(if needed)

rail with cable channel (section 3 of 3)

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

TOOLS NEEDED FOR INSTALLATION

BE SURE YOU HAVE ALL NECESSARY PARTS AND TOOLS BEFORE TRAVELING TO INSTALLATION SITE.

_____Chop saw (or other power saw with metal-cutting blade suitable for aluminum and steel)

_____Torpedo level

_____20-foot tape measure

_____Flashlight

_____Metric sockets(10 mm, 13 mm, 17mm,and 22 mm)

_____Metric and U.S. open ended box wrenches (10 mm, 13 mm, 17mm,and 22 mm, plus 5/16”, 9/16”, 5/8”, 3/8”, 3/4”, 7/16”)

_____Soft-faces or dead-blow hammer, or hard rubber or rawhide mallet

_____Ratchet, 3/8” with 6” extension

_____Phillips screwdrivers, including snub-nose

_____Flat-head screwdriver

_____Metric Allen wrenches (#2.5, #5 and #6)

_____Magnetic socket, 3/8” (Bruno recommends use withan 18” extension)

_____Needle-nose pliers

_____Utility knife

_____Wire stripper

_____Wire crimper

_____Vise grips and C-clamp vise grips

_____Electric drill with letter “O” or 5/16” bit

_____Nut driver, 5/16”

_____Drill driver with MINIMUM 18” extension

_____Extension cords

_____File

_____12” adjustable wrench

_____Scratch awl

FITTING THE RAIL

1. Determine whether the stairway elevator will be installed on the right or left side of the stairs, **as viewed from the bottom of the stairs.**

NOTE: *Unless otherwise specified, Bruno Stairway Elevators are shipped from the* ***factory set for left-side installation****.*

If you wish to convert to right-side installation, please refer to the instructions appearing later in this manual.

2. Determine the exact rail length by placing a tape measure in a straight line on the stairs (see STEP 4 of the APPLICATION GUIDE).

3. To this number, add Measurement B (see STEP 4 in the APPLICATION GUIDE)

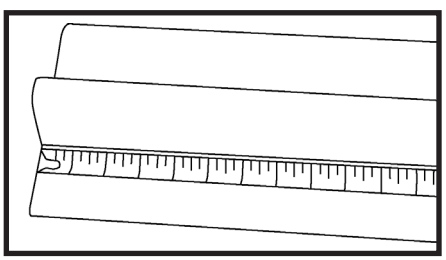
NOTE: ***If the unit is equipped with an over-speed brake, add 5" to the rail length.***

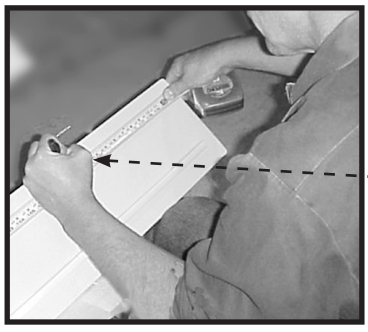
This calculation will allow you to precisely fit the Stairway Elevator to your customer by determining the most comfortable seat-to-floor height within the space available at the top of the stairs.

4. Mark the length on the rail, as determined in the previous step.

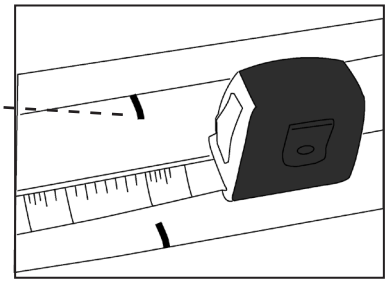
NOTE: ***Be sure that excess length is cut off of the LOWER end of the rail.***

5. After marking, and BEFORE cutting the rail, cut the cable channel back approximately 3 inches from the mark to avoid having to cut through the channel.





cut off excess from bottom end of rail



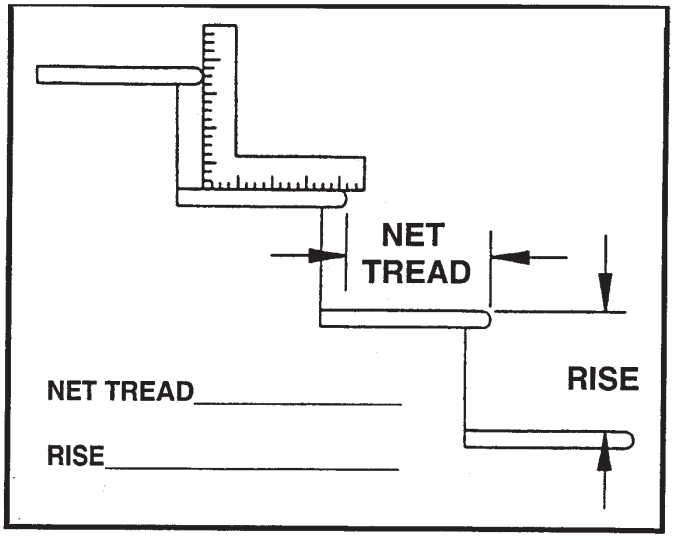
©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

APPLICATION GUIDE FOR BRUNO STRAIGHT STAIRWAY ELEVATOR SYSTEMS

DEALER:_____ PO#_____

CUSTOMER:_____ DATE:_____

STEP 1 DETERMINE THE STAIRCASE ANGLE



NET TREAD_____

RISE_____

RISE	NET TREAD						
	12"	11"	10"	9"	8"	7"	6"
6"	27	29	31	34	37	41	45
7"	30	33	35	38	41	45	
8"	34	36	39	42	45		
9"	37	39	42	45			
10"	40	42	45				
11"	43	45					
12"	45						

NOTE: ANGLES ABOVE ARE ROUNDED TO THE NEXT DEGREE. FOR ANGLES ABOVE 45 DEGREES, CONSULT BRUNO FOR SPECIAL ORDER DETAILS.

STEP 2 DEFINE STAIRWAY DIMENSIONS AND DETAILS

STAIR TREAD MATERIAL _____

LOWER LANDING MATERIAL _____

UPPER LANDING MATERIAL _____

STAIRCASE WIDTH _____
(32" Min. for Standard Unit)

OBSTRUCTIONS _____
(i.e. Handrails, Moldings)

STEP 3 CHAIR AND RAIL DETAILS

SIDE OF STAIRWAY THE RAIL IS TO BE MOUNTED, LOOKING UP FROM BOTTOM:

LEFT: ☐ RIGHT: ☐

CHAIR UPHOLSTERY:

TAN VINYL: ☐ TAN FABRIC: ☐

RESIDENTIAL KEY PACKAGE: ☐

COMMERCIAL PACKAGE: ☐

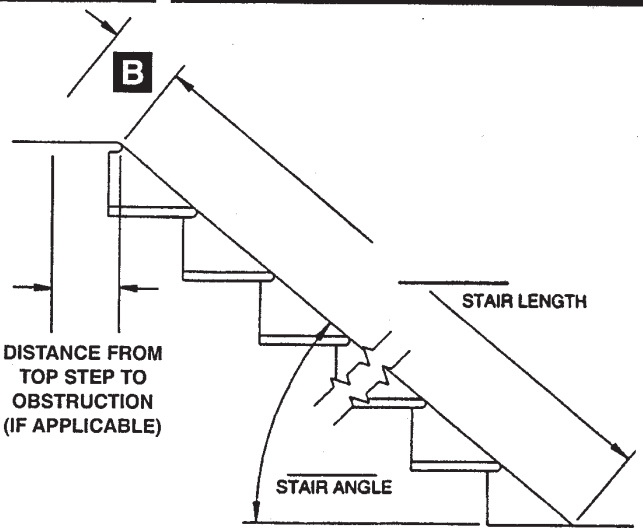
PLEASE REFER TO "STEP 3" ON THE FOLLOWING PAGE FOR DETAILS.

BRUNO® INDEPENDENT LIVING AIDS ISO 9001 CERTIFIED

Bruno Independent Living Aids, Inc.
1780 Executive Drive, P.O. Box 84,
Oconomowoc, WI 53066

1-800-882-8183 • (262) 567-4990
www.bruno.com
SALES DEPT. FAX (262) 953-5501

STEP 4 RAIL LENGTH



DETERMINE THE STAIR LENGTH: _____

ADD "B" TOP RAIL EXTENSION: _____

PLEASE REFER TO "STEP 4" ON THE FOLLOWING PAGE FOR DETAILS.

Overall Rail Length Required: _____

16' STOCK _____ 20' STOCK _____

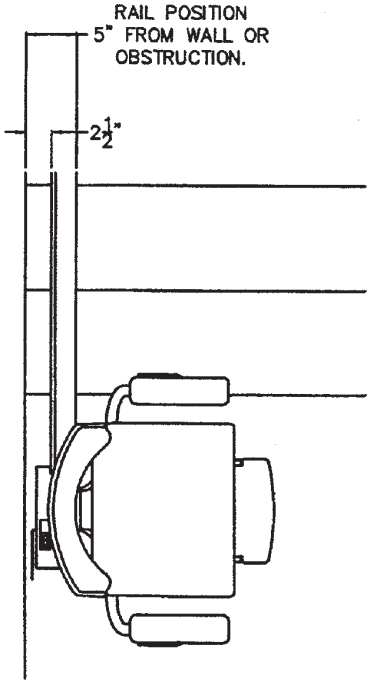
24' STOCK _____ CUSTOM CUT RAIL _____

FORM ESLG D 0996-4 2/01-2 © Bruno Independent Living Aids, Inc. 2001

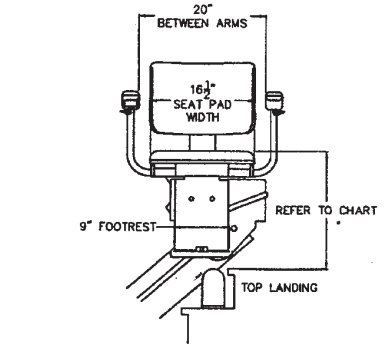
©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

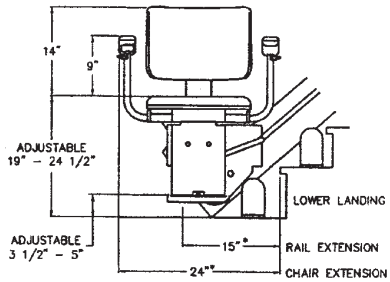
STEP 3 SRE-2000 ELECTRA-RIDE™ ELITE APPLICATION DETAILS

TOP VIEW



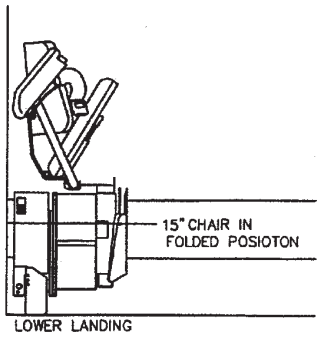
FRONT VIEWS

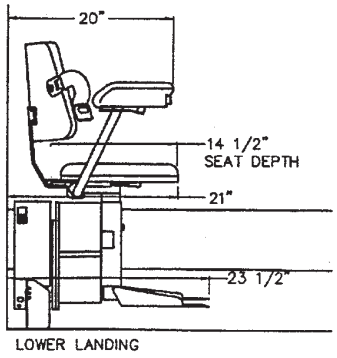




* LOWER LANDING EXTENSION DIMENSIONS ARE BASED ON 40 DEGREE RAIL SLOPE AND 8" 1ST RISER HEIGHT, DIMENSIONS WILL VARY BASED ON SLOPE AND RISER HEIGHT.

SIDE VIEWS



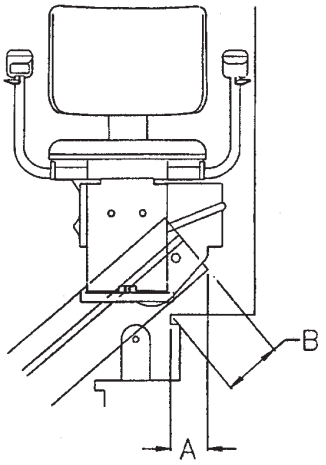


UPPER LEVEL ENTRY/EXIT SEAT HEIGHT IN INCHES

	17"	18"	19"	20"	21"	22"	23"	
35 °	4.9	6.4	7.8	9.3	10.4	12.2	13.5	A
	6.0	7.8	9.5	11.3	12.7	14.8	16.5	B
36 °	4.8	6.2	7.6	8.9	10.3	11.7	13.1	A
	5.9	7.6	9.3	11.0	12.7	14.4	16.1	B
37 °	4.6	5.9	7.2	8.6	9.9	11.0	12.5	A
	5.7	7.3	9.0	10.7	12.3	13.7	15.6	B
38 °	4.4	5.7	6.9	8.2	9.6	10.8	12.2	A
	5.6	7.2	8.8	10.4	12.1	13.7	15.4	B
39 °	4.2	5.5	6.7	8.0	9.2	10.5	11.7	A
	5.4	7.0	8.6	10.2	11.8	13.4	15.0	B
40 °	4.0	5.2	6.4	7.5	8.7	9.8	11.1	A
	5.2	6.8	8.4	9.9	11.5	13.0	14.7	B
41 °	3.9	5.1	6.2	7.4	8.5	9.7	10.8	A
	5.2	6.7	8.2	9.7	11.2	12.8	14.3	B
42 °	3.8	4.9	6.0	7.1	8.2	9.3	10.4	A
	5.1	6.5	8.0	9.5	11.0	12.5	14.0	B
43 °	3.6	4.6	5.7	6.8	7.8	8.9	10.0	A
	4.9	6.3	7.8	9.3	10.7	12.2	13.7	B
44 °	3.5	4.5	5.6	6.6	7.7	8.7	9.7	A
	4.8	6.2	7.7	9.1	10.6	12.0	13.4	B
45 °	3.4	4.4	5.3	6.3	7.3	8.3	9.3	A
	4.7	6.1	7.5	8.9	10.3	11.7	13.1	B

DIMENSIONS ON CHART ARE WITH THE CHAIR IN THE LOWEST POSITION 19".

STEP 4



The chair extends approximately 4–5" beyond the rail at the upper landing.

OVERSPEED BRAKE REQUIREMENTS

The rail extension "B" must be increased 5" when using the Commercial Package Overpseed Brake. Refer to the SRE-2000 Installation Manual for more details.

ALTERNATE SEAT HEIGHT DIMENSIONS

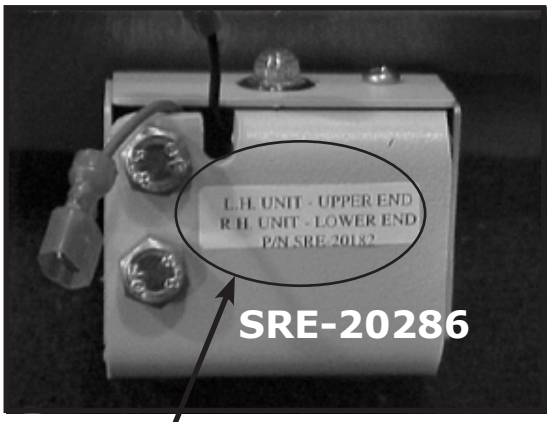
Measured @ Lower Level:
20,21,22,23,24.5

Reduce the "B" dimension 1.5" for each inch the seat height is increased.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

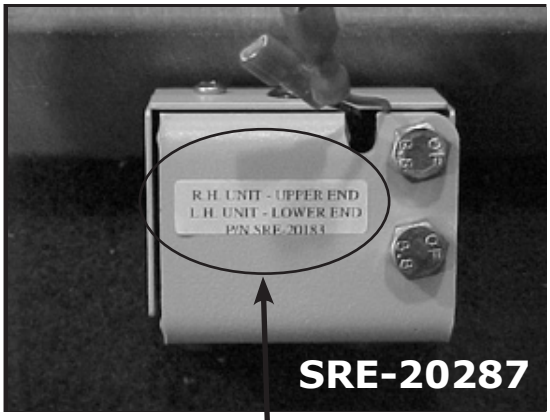
Distinguishing left- and right-hand charge bumper brackets

LEFT-HAND INSTALLATION



L.H. UNIT - UPPER END
R.H. UNIT - LOWER END

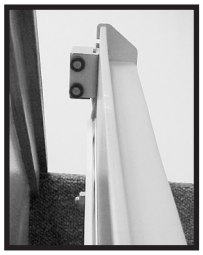
RIGHT-HAND INSTALLATION



R.H. UNIT - UPPER END
L.H. UNIT - LOWER END

Left-hand installations:

bracket SRE-20286 mounts on upper end



charge contacts point down the stairs

bracket SRE-20287 mounts on lower end

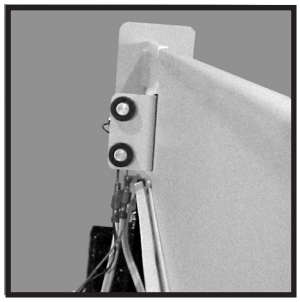
charge contacts point up the stairs

Right-hand installations:

bracket SRE-20287 mounts on upper end

charge contacts point down the stairs

bracket SRE-20286 mounts on lower end



charge contacts point up the stairs

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

Cutting the rail and installing the lower bumper

IMPORTANT NOTE!
Under no circumstances should a rail section be cut shorter than 18 in. (46 cm).
There must be at least (2) clamps on a short rail section (1 at the rail joint and 1 at the rail end). Cutting a rail shorter than 18 in. (46 cm) would not allow enough room for the (2) necessary clamps.
Example:
After measuring the staircase, you determine you need 9 feet of rail. With your (2) 8-foot sections you decide to use (1) 8-foot section and cut the remaining (1) foot from the second 8-foot section.

Doing this could yield a rail piece with insufficient weld.

Instead, Bruno recommends cutting at least one foot off one of the 8-foot sections (leaving 7 feet of rail) and then cutting 2 feet from the second 8-foot section. You will have a (1) 7-foot section and (1) 2-foot section, both of which are long enough to be properly mounted (2 clamps minimum per short rail).

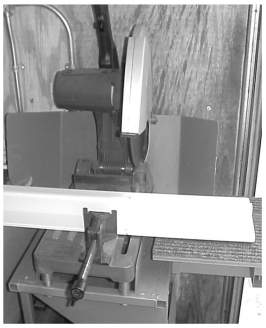
NEVER CUT OFF THE JOINT END!

The M6 bolts securing the gear rack ***must*** remain intact.

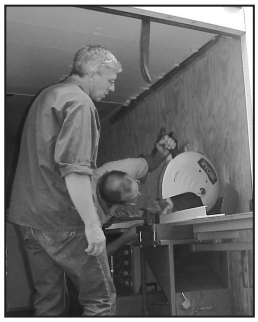
Cut off the end with the pre-drilled charge contact mounting holes.
Then, using the provided template, redrill (2) holes on each end of the rail.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

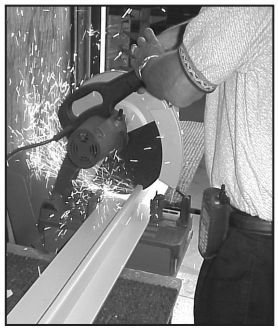
Cutting the rail and installing the lower bumper (con't.)



flat side of rail to saw bed



align saw with mark



up and down motion

1. ***BE SURE TO WEAR PROTECTIVE GLOVES AND EYEWEAR.***

   During the cutting process, sparks will fly and the metal rail will become very hot.

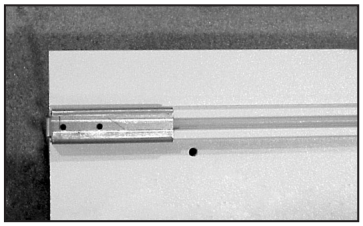
2. Place flat side of the rail on the saw bed. Carefully align the saw to the line marking the desired finished length of the rail.

3. For a precise and efficient cut, Bruno recommends the use of a chop saw*.

   A down-up motion during the cutting process helps avoid overheating the saw motor.

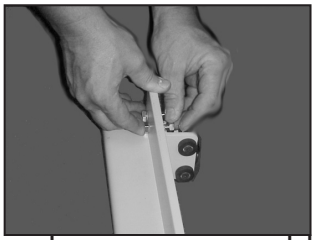
*NOTE: The chop saw (or other power saw) must be equipped with metal-cutting blade ***suitable for aluminum and steel***.

4. Once the rail is cut, deburr the cut end using a file or other appropriate tool. Soften any sharp edges which might abrade the insulation of the wiring routed to the bumper at the rail end.



template on rail

5. Place the metal template (provided) on rail as shown. Hold in place. Using a 1/8 in. bit, drill two pilot holes. Switch to a 5/16 in. bit and re-drill the (2) holes.



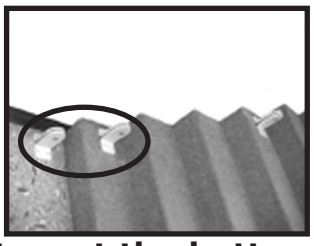
lower bumper assembly

6. Install the lower bumper assembly and end cap using the hardware provided.

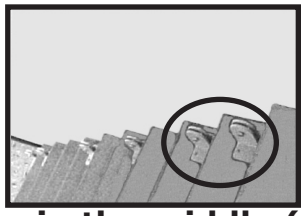
   You may wish to place a piece of cardboard or a non-skid rug under the end of the bottom rail to protect the floor and to keep the rail section from sliding off the stairs.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

Placing the rail clamps and rail sections



two at the bottom



two in the middle (one on each side of rail joint)

two at the top*

"B" LOCK CLAMP

1. Place rail clamps on the stairs in the following pattern (LONGER-footed clamp to the outside).
   - bottom landing
   - first tread up from bottom landing
   - top landing
   - first tread down from top landing*

     (no clamp on top step/landing for unit with standard extension)
   - closest tread above and below rail joint(s),

   then
   - minimum of every third tread over the remainder of the staircase.
2. Mount the bottom rail section in between the clamp halves. Tighten the hardware enough to render the rail immobile.

   Do not fully tighten at this time.
3. Once the bottom rail section is mounted in the clamp assemblies, rest the bottom of the rail against the step noses at a distance from the wall of approximately 6" (15 cm).

A minimum of (1) clamp *must* be installed beneath the B LOCK CLAMP (secured to the floor or step). After the rail is installed, *drill through rail (using holes in top of B clamp as guides) with a 1/4 in. bit.

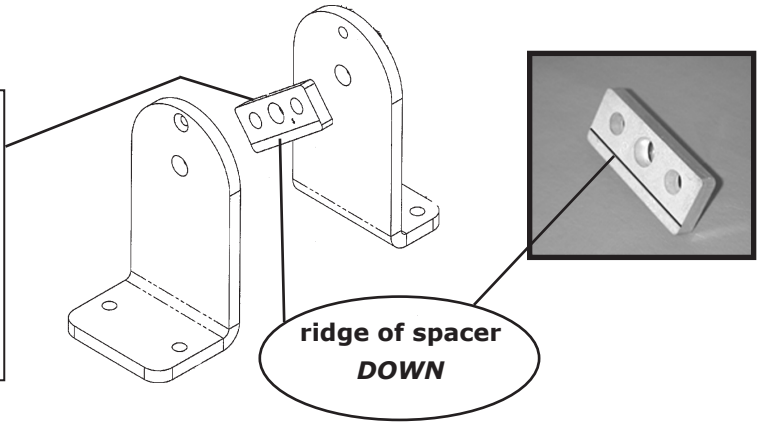
Install M6 hardware, with nut on wall side of rail (see exploded view at rear of manual).

NOTE:

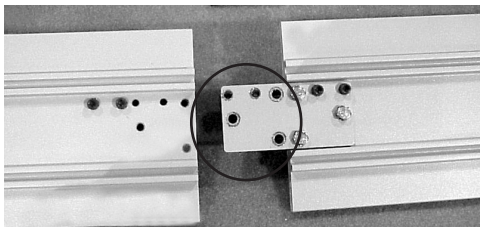
Insert the hardware so that the nut is closest to the wall.

NOTE:

When the rail is inserted between the clamp halves, it will rest on the clamp spacer.



©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®



slightly
loosen
x 5

4. Place the *upper* section of the rail in the clamps placed in Step 1.

   When the rail is inserted between the clamp halves, it will rest on the clamp spacer (see illustration, previous page).

5. ***Slightly*** loosen the (3) M8 hex head screws and the (2) M6 Allen head screws securing the joint plate to the rail.

   This makes it easier to align the screws and the holes on the mating rail section.

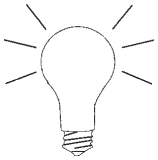
6. Gently slide the upper rail section up or down the stairs until it mates with the lower section so that the mating ends fit *flush*.

7. From the kit provided, insert the (2) M6x1x45 mm Allen head and the (3) M8x1.25x16 mm hex head screws into the appropriate holes in the joint plate. ***DO NOT TIGHTEN.***

NOTE: *If the M6 Allen head screws do not line up with the gear rack threads*, loosen all of the M5 set screws (***two turns only***) to allow the gear rack to slide just slightly in the rail, and permit alignment of the M6 screws and the gear rack threads.

8 Before tightening the hardware:

- check that the screw and rail/gear rack threads are properly engaged;
- make sure the rail sections are flush.



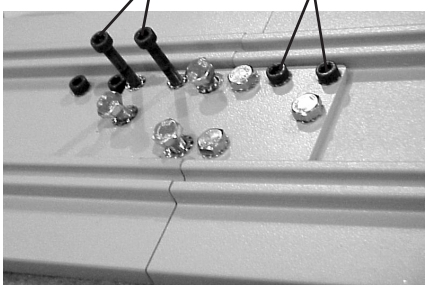
It may be helpful to apply a small amount of silver anti-seize material to the hardware threads before inserting.

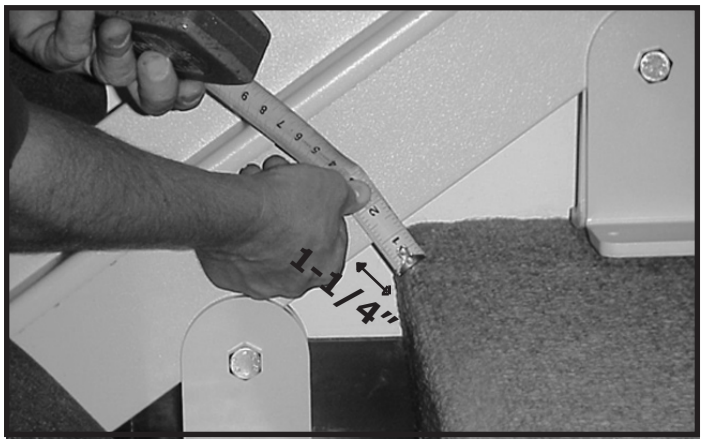
9. ***Order of tightening hardware is important!***

- FIRST tighten the (4) M6 Allen head screws engaging the gear rack.
- Then tighten the (6) M6 hex head screws.

10. Slide the top and bottom clamps up or down on the rail until they are firmly seated on the step.

Tighten us first!





step nose to bottom of rail = 1-1/4” (32 mm)

Rail-to-step nose distance must
INCREASE TO 1.5” (38 mm)
if
extended footrest assembly
is used.

IMPORTANT NOTES

The rail must rest approximately 1-1/4 inches (32 mm) above the step nose of *EVERY* step, and extend from the floor at the bottom of the stairs to a point beyond the nose of the top step (see Application Guide Step 4).

It may be necessary to pound a scratch awl in one of the rear clamp mounting holes to prevent the rail from sliding.

Clearance!

Stair profiles do vary, so it is critical to ensure proper clearance between the step nose and the bottom of the rail.

Failure to install the rail at the specified 1-1/4” (32 mm) distance from the step nose will cause the footrest to contact to steps, thus provoking intermittent operation of the stairway elevator. If necessary, gently slide rail and clamps toward or away from the stair riser to adjust the clearance to the 1-1/4 in. recommanded distance.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

As you tighten the clamps around the rail sections, regularly check that the rail is vertical or leaning backwards**.** Rail section MUST be at a 90-degree angle to the stairs, OR leaning BACK slightly. The rail section must ***NEVER*** lean forward.

11. Tighten the clamp hardware enough to render the upper rail immobile. ***Do not fully tighten at this time.***
12. Once the rail sections are installed, tighten the clamps.
13. BEFORE mounting the carriage, check the straightness of the rail over all of the stairs by using a level, or a plomb line along the rail.

    If the rail bows or leans forward, insert shims or readjust the clamps.
14. Secure 2 or 3 of the rail clamps to the stairs.

    Secure the back half of the clamps first.

    The rail should be located 2-5/8” (67 mm) from the closest obstruction and the back of the rail.

BACK FOOT OF CLAMP (3 HOLES)

INSTALLATION ON CARPET

Before securing the rail clamps with hardware, seat them using a deadblow hammer. Use a rubber mallet to compress the rug and pad before anchoring the clamp to the step.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

Bruno ships this stairway elevator with fasteners appropriate for *WOODEN STAIR TREADS ONLY.*

Installation of the Stairway Elevator on surfaces made of materials other than wood may require different fasteners specific to the material.

If you are unsure as to which fastener applies to the installation, please contact the Bruno Technical Service Department.

IMPORTANT MEASUREMENT:

Take before and after securing each clamp!

back of rail to closest obstruction > distance *must measure* 2-5/8" (67 mm)

Examples of obstructions:

- wall
- railing
- lip of bannister
- windowsill
- handrail)

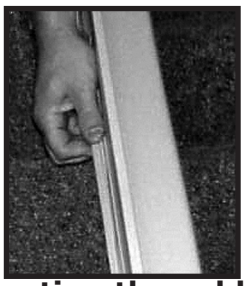
2-5/8" (67 mm) from closest obstruction

15. For installation on hardwood stairs, Bruno recommends drilling a pilot hole for the clamp fastener before inserting the fastener.

16. ***Do not secure the remaining clamps until the carriage is on the rail, and all clearances are verified.***

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

Routing the cable

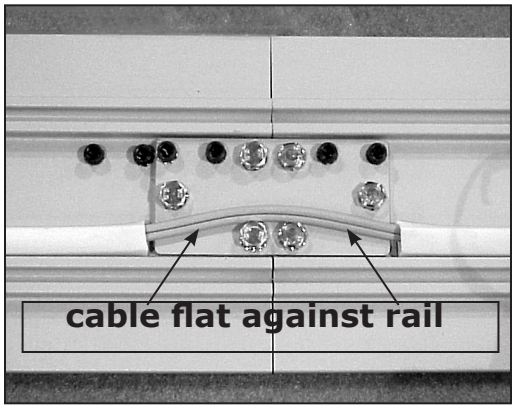


routing the cable

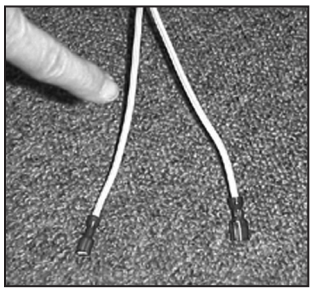
1. Once the clamps are in place, and secure, and after verifying that the rail bottom is at least 1-1/4" (32 mm) from the bottom of the rail, and that the rail is straight, insert the power cable into the channel that runs along the back of the rail (side closest to the wall).

2. Determine the location of the wall outlet. Start inserting the cable (i.e., pigtail of the charge harness) at the end (top or bottom) closest to that outlet.

NOTES:
- Position the battery charger at this end.
- When routing the cable around the joint plate, make sure that the ***cable rests snugly flat against the rail (see illustration to left)***.



Notice that the end of the cable opposite the pigtail harness has been split slightly, and includes one male and one female connector. The sheathing of one lead is ribbed (finger is pointing to ribbed sheathing). The other lead's sheathing is smooth.



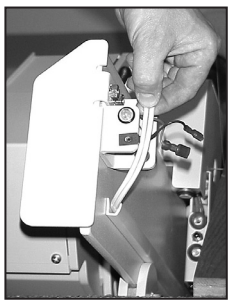
rib to red (+) female ***smooth to black (-) male***

The ribbed lead attaches, via FEMALE connector, to the RED positive charge lead.

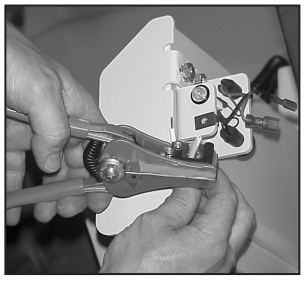
The smooth lead attaches, via the MALE connector, to the BLACK negative charge lead.

- Increase the split
- Cut off approximately the length shown below.
- **Discard the old connectors.**
- Strip the freshly cut wire ends.
- Install the new connectors provided in the kit.
- Connect the two wires to the charger bracket.
- Gently tuck the wires in the bumper assembly.
- Attach the bumper cover.

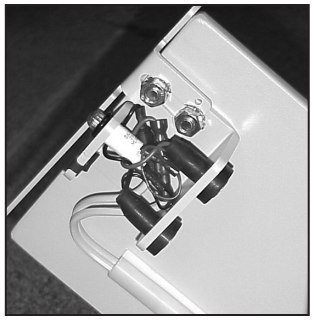
cut to length



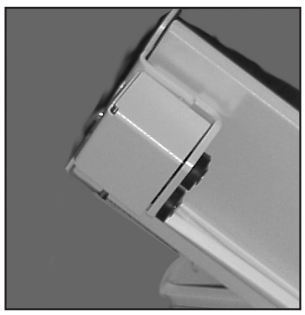
strip wire ends



tuck wires into bumper assembly

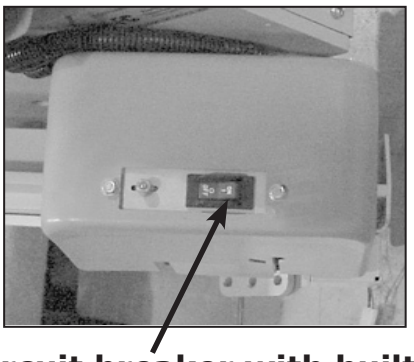


attach bumper cover



©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

Circuit breaker



circuit breaker with built-in on/off switch

The ON/OFF switch is built into the circuit breaker and is provided to protect the battery, controller and motor circuits in the stairway elevator carriage.

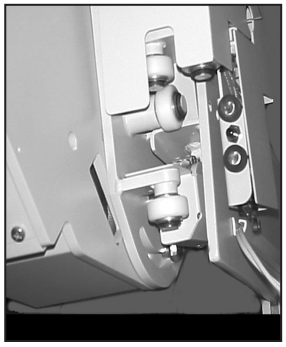
It is unlikely that this circuit breaker will trip in normal use. However, should the elevator fail to operate, check the circuit breaker as a first troubleshooting step, and reset it if necessary.

Bruno recommends that you determine the reason that the breaker tripped, and correct the situation.

Most frequent causes of a tripped circuit breaker:

1. foreign object jamming the rail or gear rack, and
2. exceeding the rated load capacity leading to circuit overload of the elevator.

Mounting the carriage, upper bumper and upper end cap

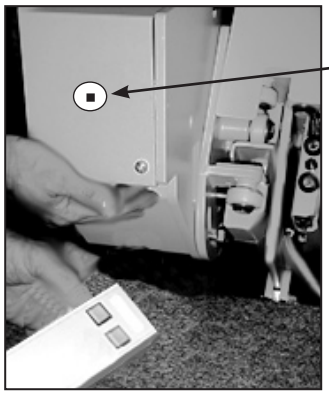


recessed gear rack for easier mounting of carriage onto rail

1. Lift and tilt the carriage as you guide the carriage wheels onto the rail.

   The newly-designed rail features a recessed gear rack to facilitate feeding the carriage onto the rail.

2. Turn on the circuit breaker.



Use the **remote** to fully engage the carriage on the gear rack.

3. Once you feel the carriage begin to engage the gear rack, ***USE THE REMOTE*** to finish feeding the carriage onto the rail.

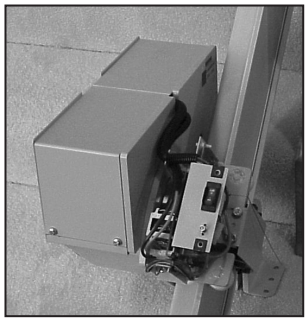
   Make sure the remote is pointed at the sensor (see illustration).

3. The remote will feed the carriage smoothly onto the rail , and at the proper speed to ensure that the gear rack and carriage mesh correctly.

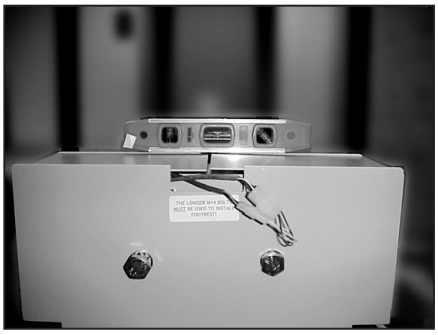
4. Mount the upper bumper assembly and the upper end cap.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

Adjusting the carriage angle



Remove main loosen (2) M14 bolts to adjust carriage angle back carriage cover.



Verify that unit is level.

1. *Using the remote*, verify that the carriage travels smoothly down and back up the rail.
2. When the carriage is at the top of the stairs, check that it is level. Use a builder's or protractor level.
3. Adjust the carriage angle, *if necessary*, to make the unit level.
   - Loosen the two (2) M14 bolts on the carriage subassembly with a 22mm open-ended wrench.
   - To access the second bolt, remove the back main carriage cover. Gently apply downward pressure on the right or left side of the carriage, as needed to return the carriage to a level condition.
4. ***Retighten the 2 bolts.***
5. Recheck with the level.

Checking the wall clearance

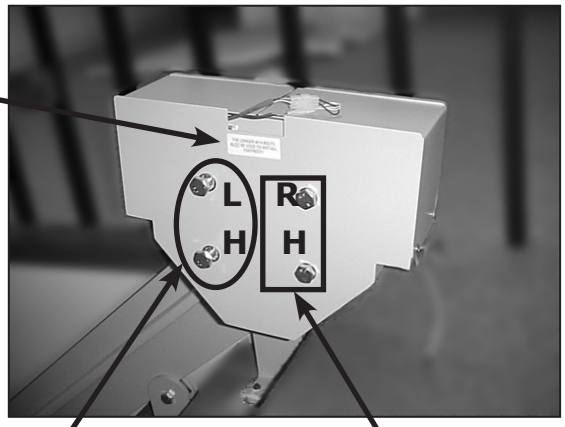
Now that the carriage is securely mounted on the rail, check the clearance between the antenna and the closest obstruction (wall, handrail, windowsill, base of railing).

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

Mounting the footrest assembly

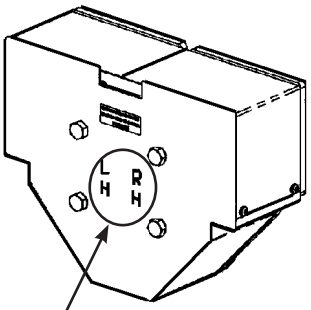
Note on carriage plate:

Longer M14 bolts must be used to install footrest

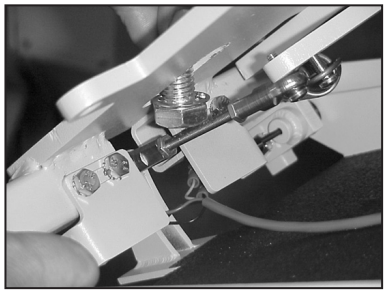


longer bolts here for left-hand installation

longer bolts here for right-hand installation



LH and RH are burned into the carriage plate to indicate correct location of longer bolts for footrest installation



Longer M14 bolts must be used to install the footrest.

- The extra length is needed to accommodate the plate thickness.
- For left-hand installations, the longer bolts are in the holes closest to the LH.
- For right-hand installations, the longer bolts are in the holes closest to the RH.

1. Unscrew the two (2) longer M14 x 25 mm bolts illustrated above.
2. Insert the bottom M14 bolt in the footrest support plate.

NOTE: For ease of bolt insertion in the footrest slot, tip the footrest assembly in its folded position (see photo).

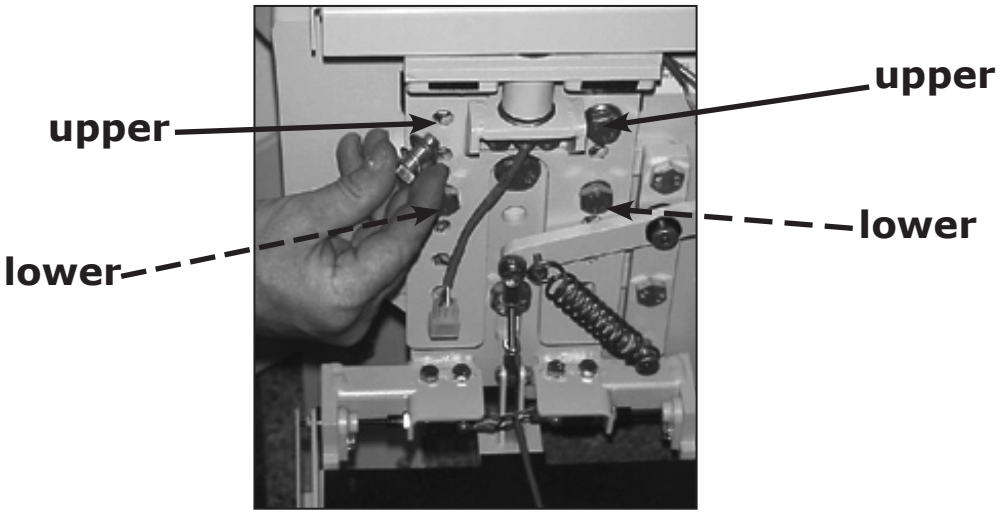
3. Insert the top M14 bolt in the footrest support plate.

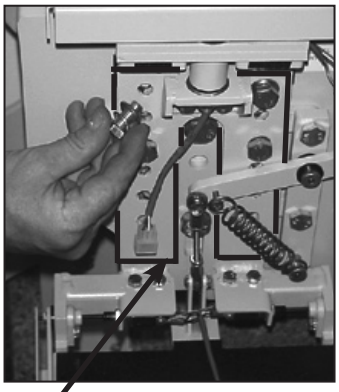
*NOTE: There are (2) holes above the slotted opening. Inserting the M14 bolt in the UPPER hole positions the footrest about 3-1/2" above the floor.*nserting the bolt in the LOWER hole positions the footrest about 5" above the floor.

4. Tighten the two (2) bolts.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

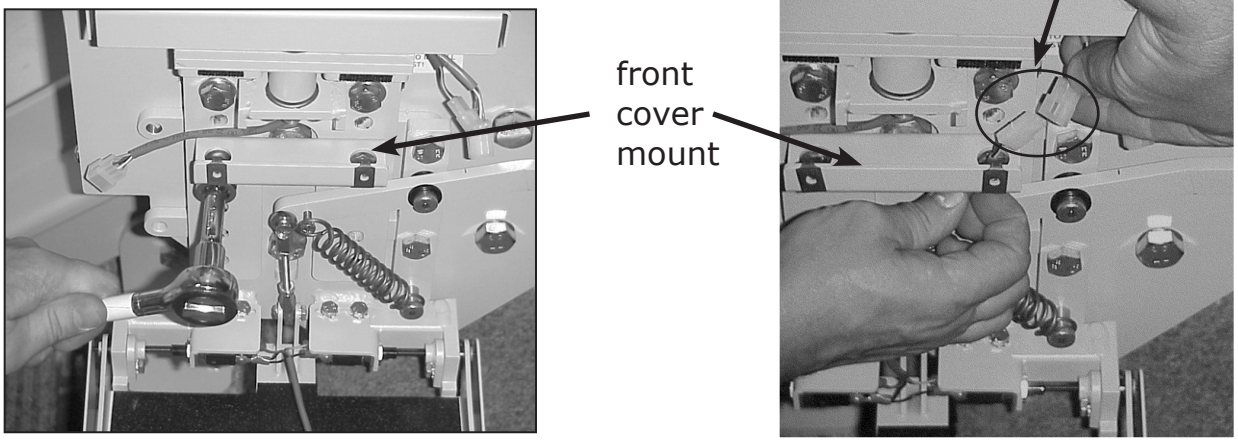
Mounting the seat assembly





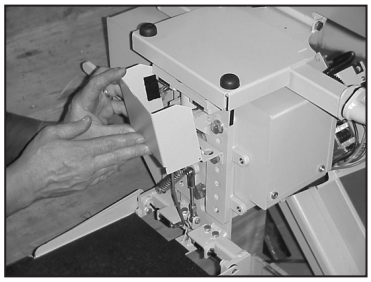
seat post assembly outlined in black for illustration purposes

1. Slide the seat post assembly between the footrest assembly mounting plate and the footrest lever.
2. Secure the seat post assembly:
   - UPPER HOLES: Secure with two (2) M10 x 1.50 x 20mm lg hex head cap screws, (2) flat washers and (2) lockwashers.
   - LOWER HOLES: Install the front cover mount with two (2) M10 x 1.50 x 20 mm lg head head cap screws and (2) lockwashers (no flat washers).
3. Route the wire harness of the carriage contact assembly through the front cover mount as shown.
4. Connect the two ends of the wire harness.



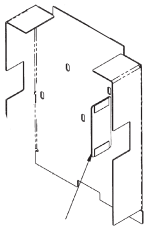
©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

Illustrations on this page pertain to a RIGHT-SIDE installation.



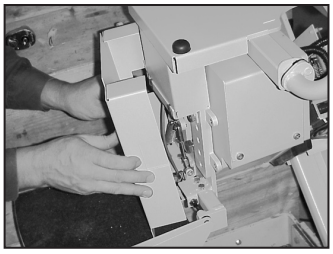
mount seat mount cover

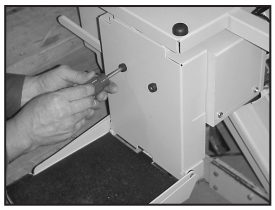
5. Mount the seat mount cover using the pre-attached Velcro® strips.



mount side cover

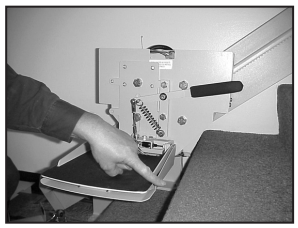
6. Mount the side cover to cover the *unused* opening, using the pre-attached Velcro® strips (cover the hole on the right for left-side installations, and the hole on the left for right-side installations).





position and secure front cover

7. Position the front cover as shown and secure with the black bumpers and #8 x .75” lg Phillips head sheet metal screws.



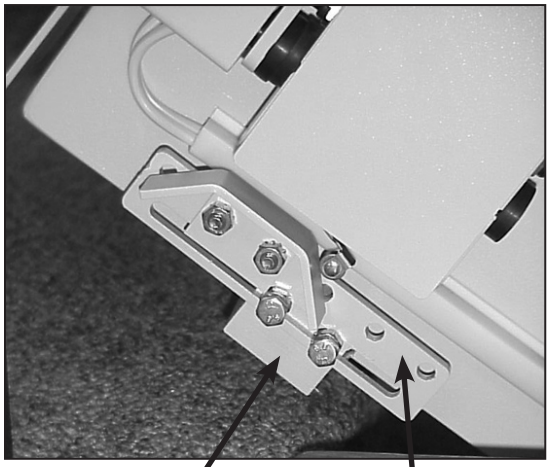
verify clearance

8. ***Run the carriage up and down the rail to verify all clearances***.

9. Finish mounting and securing all rail clamps.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

Mounting the final limit ramp kit



The final limit ramp kit is a safety feature which enhances the stopping capability of the Electra-Ride™ Elite.

It mounts on the top rail section, on the side facing away from the stairs.

1. Before installing the final limit ramp kit, run the carriage down a foot or two to provide greater access to the mounting hardware.
2. Mount the final limit ramp kit on the bottom side of the rail as shown below.
3. Using the holes for the ramp and/or the slotted adjustment bar and block allows for fine adjustment of the position of the final limit ramp kit in relation to the clamp on the top step.
4. To attach the block to the rail, tighten the (2) M6x1x30mm bolts ONLY.
5. To secure the adjustment bar, tighten the (2) M6 nuts on the M6x1x30mm bolts.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

INFRARED CALL/SEND TRANSMITTER

The call/send system on the Bruno SRE-2000C is based on infrared (IR) controls, the same type of control used for televisions and stereos.

Like a television remote, the SRE-2000C hand-held transmitter may experience certain types of interference.

Receivers are mounted on both sides of the SRE-2000C carriage to minimize interference.

Should interference occur, the unit will stop. This feature has been integrated into the SRE-2000C to ensure your safety.

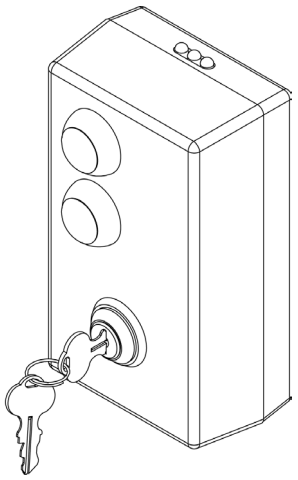
The direct line between the transmitter to either of the (2) transmitters should be clear of obstacles for optimal operation. It may be necessary to reposition the transmitters so that they are aimed at the carriage.

To reduce the possibility of interference:

- While riding in the seat, ALWAYS operate the Elevator using the rocker switch on the armrest.
- Operating the SRE-2000C with a transmitter while riding in the seat can lead to signal interference.
- ***DO NOT*** mount the transmitters behind an obstacle such as a rail post.
- ***DO NOT*** allow direct sunlight to shine on the receivers (blinding the receivers on the carriage).
- DO replace transmitter batteries regularly.
- Depleted or nearly-depleted batteries alter the effective range of the transmitter.
- DO keep the transmitter and receiver lens free of dirt and debris.
- Use a non-abrasive cleaner suitable for glass or acrylic surfaces.
- Do not use polishes or cleaning products containing wax. These products will leave a film on the lens that will reduce the signal transmission range.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

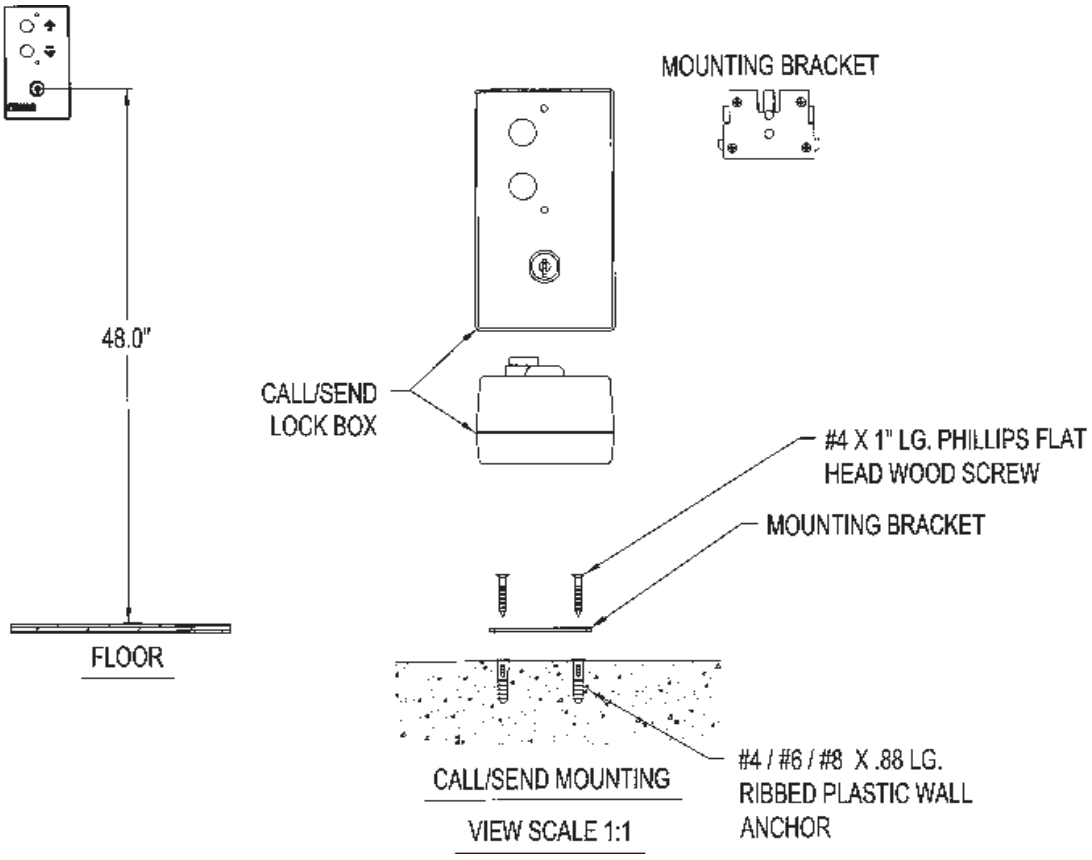
Mounting the Commercial Call/Send Transmitters



- Install the key-controlled call/send transmitters as shown below.
- The key switch should measure approximately 48” (122 cm) from the floor.
- Install one transmitter at the top of the stairs, and one at the bottom.

NOTE:
INSTALLATION OF THE CALL/SEND TRANSMITER MAY VARY BY LOCAL CODE.

PLEASE REFER TO LOCAL CODES FOR INSTALLATION GUIDELINES.



©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

Testing the Call/Send Transmitters

- ***Train the customer to use the stairway elevator correctly and safely.***
- ***Have the customer operate the unit while you are there to answer questions and address concerns.***
- ***Remind the customer to always use the seat positioning belt.***

A slight delay will occur between the time the rocker switch is depressed and the start of carriage movement.

This is normal and is a function of the *soft start* feature of the controller.

1. Run the unit up and down the stairs using the rocker switch on the carriage.

NOTE: The unit should operate in such a way that the arrow depressed on the rocker switch corresponds to the desired direction of travel.

The unit should travel noticeably faster going up than down.

2. Run the unit up and down the stairs using the call/send transmitters.
3. Test both transmitters.
4. Push the seat into the folded position and run the unit up and down the stairs with the call/send transmitter.
5. With the seat in the central riding position, move the elevator completely down and up the rail, while observing the elevator-to-wall clearance.

A clearance of 1/2" to 1" (13-25 mm) is acceptable.

6. Repeat the run with the seat in the folded position. If necessary, adjust the rail placement by sliding it closer to, or further from the wall.
7. Verify proper operation of the following: speed, direction, final limit switch, foot-rest safety switch, seat swivel safety switch, and remote call/send transmitter.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

CIRCUIT BOARD DIAGNOSTICS

The circuit board provided on the SRE-2000C is equipped with (4) diagnostic modes that continuously monitor the unit's operation. This choice of operational modes allows the SRE-2000C to respond to the requirements of a wide variety of installations.

NOTE : The SRE-2000C is shipped in the MULTI-USER/DIAGNOSTIC MODE.

MULTI-USER/DIAGNOSTIC MODE

Provides full range of Audio diagnostic notices:

- ***Circuit Board Power Up**: Chirp
- ***Safety Device Activated**: Chirp
- ***Elevator Stopped Off Charge Bumper**: 5 Beeps (4 short and 1 long)
  Repeats every 3 minutes until the Elevator is returned to the bumper.
- ***Seat Safety Disengaged**: Chirp repeats every 3 seconds until seat safety switch is re-engaged.
- ***Battery Voltage Drop**: 5 Beeps (3 short and 2 long)
  Repeats every 4 minutes until seat safety switch is disengaged, the battery voltage increases, or the switch is pressed.
- ***Battery Voltage Critical**: 5 Beeps (2 short and 3 long)
  Repeats once a minute until the voltage exceeds 16V or the switch is pressed.
- ***Switch Active During Power Up**: 3 Beeps / Pause
  Repeats beeps every 5 seconds until all switches are off.
- ***More Than One Switch Active**: 3 Beeps / Pause/X beeps (number of beeps indicates which switches are active)
  Repeats every 30 seconds until all switches are off.
- ***Transmitter ID Memory Full**: 3 Beeps (1 short and 2 long)

SINGLE-USER MODE

Provides the same audio diagnostic notices as the Multi-User/Diagnostic Mode, except for the Seat Safety Disengaged notice.

QUIET MODE

In the QUIETmode, none of the Audible Warning Messages is active.

BATTERY WARNINGS ONLY MODE

Provides battery audio diagnostic only.

- ***Elevator Stopped Off Charge Bumper**: 5 Beeps (4 short and 1 long)
  Repeats every 3 minutes until Elevator is returned to the bumper.
- ***Battery Voltage Drop** : 5 Beeps (3 short and 2 long)
  Repeats once every 4 minutes until the seat safety switch is disengaged or the battery voltage increases.
- ***Battery Voltage Critical**: 5 Beeps (2 short and 3 long)
  Repeats once a minute until voltage is above 16 V.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

CIRCUIT BOARD DIAGNOSTICS

NOTICE:
Before touching anything inside the carriage assembly, ground yourself by touching an unpainted metal surface on the unit such as an exposed bolt, or one of the mounting screws on the electrical panel. While you work, periodically touch an unpainted metal surface to dissipate any static electricity that could harm internal components.

AUDIO REFERENCE

Chirp	0.25 seconds
Short Beep	0.50 seconds
Long Beep	1.50 seconds
Pause	1.00 second

Changing the PCB Diagnostic Mode

1. Turn the circuit breaker on the carriage to `OFF'.
2. Remove the left carriage cover.
3. The unit is shipped in the Multi-User Diagnostic Mode. Changes are made via the Number 1 and Number 2 positions on the 4-Ganged DIP Switch.

4 GANGED DIP SWITCH

DIAGNOSTIC MODE	DIP SWITCH POSITION #1	#2
Multi-User	OFF	OFF
Single-User	OFF	ON
Quiet	ON	OFF
Battery Warnings Only	ON	ON

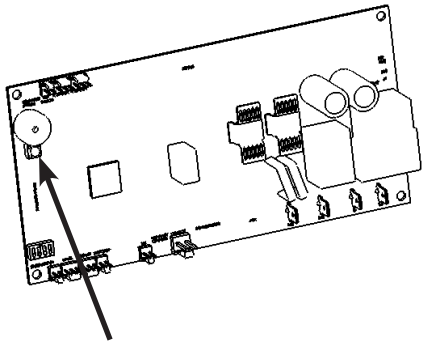
Other Circuit Board Features

Also located on the 4-ganged DIP switch are switches #3 Installation and #4 Coast Delay. The coast delay option (Switch #4) has been provided in cases of interference which may cause intermittent operation. The normal setting is 600 mSec. of coast. Should the unit lose the remote call/send signal, this can be increased to 900 mSec. by moving Switch #4 to the `ON' position.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

LEARNING THE INFRARED TRANSMITTER

(not necessary when installing unit for the first time)



LEARN/ERASE button

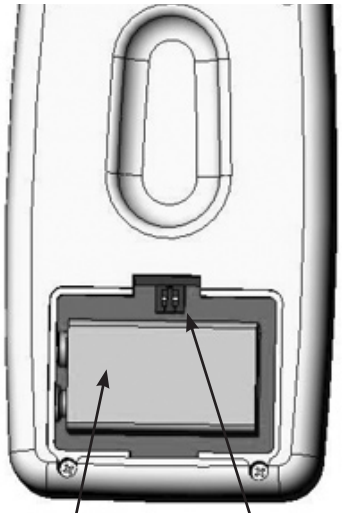
The operating channel of the two (2) infrared transmitters included with the SRE-2750 is pre-set at the Bruno factory.

Reasons for relearning transmitters:

- there are multiple units in the same location;
- you have to replace transmitters.

To relearn a transmitter:

1. Turn the circuit breaker OFF.
2. Remove the CARRIAGE COVER to expose the circuit board.
3. Locate the LEARN/ERASE button on the circuit board (see left).



9V battery (access panel removed)

SW3 switch

4. On one of the IR TRANSMITTERS, remove the battery access panel.

   NOTE: If the transmitter is mounted to a wall, unscrew the (2) mounting bracket screws, turn the transmitter over and remove the battery access panel.
5. On the TRANSMITTER board, locate the switch labelled "SW3" (see left).
6. Change the configuration for switches 1 and 2.

   Note: There are four possible configurations:
   - *1 up, 2 down (default manufacturer's setting)*
   - *1 up, 2 up*
   - *1 down, 2 up*
   - *1 down, 2 down*
7. Once you have changed the switch positions:
   - turn on the CARRIAGE circuit breaker;
   - wait until you hear a BEEP.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

LEARNING THE INFRARED TRANSMITTER
(not necessary when installing unit for the first time)
continued

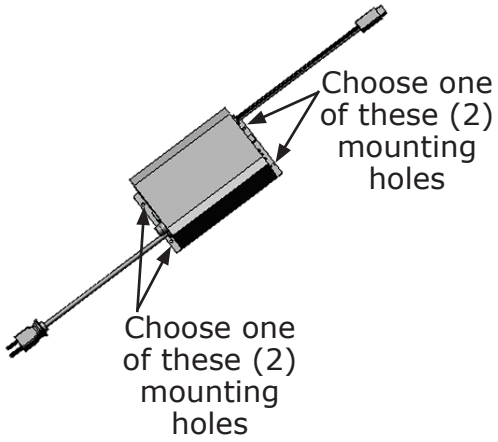
8. ***Clear the memory***:
   - Hold down the LEARN/ERASE button until the LED goes out (approximately 12 seconds).
9. Press and hold the LEARN/ERASE button (LED is on). As you continue to press the LEARN/ERASE button, press either of the call/send transmitter buttons until the LEARN/ERASE LED goes out (approximately 2-5 sec.).
10. Release both buttons (LEARN/ERASE and transmitter).

    The remote is now "learned".

11. ***Test transmitter operation***:
    - Depress either of the transmitter buttons.
    - If the carriage moves, the new configuration has been accepted and the transmitter relearned.
    - If the carriage does not move, repeat Steps 8 through 10.
12. Make sure all transmitters are set to the same switch configuration.
13. Remount the transmitter back (remount on wall if applicable).
14. Remount and secure the carriage cover.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

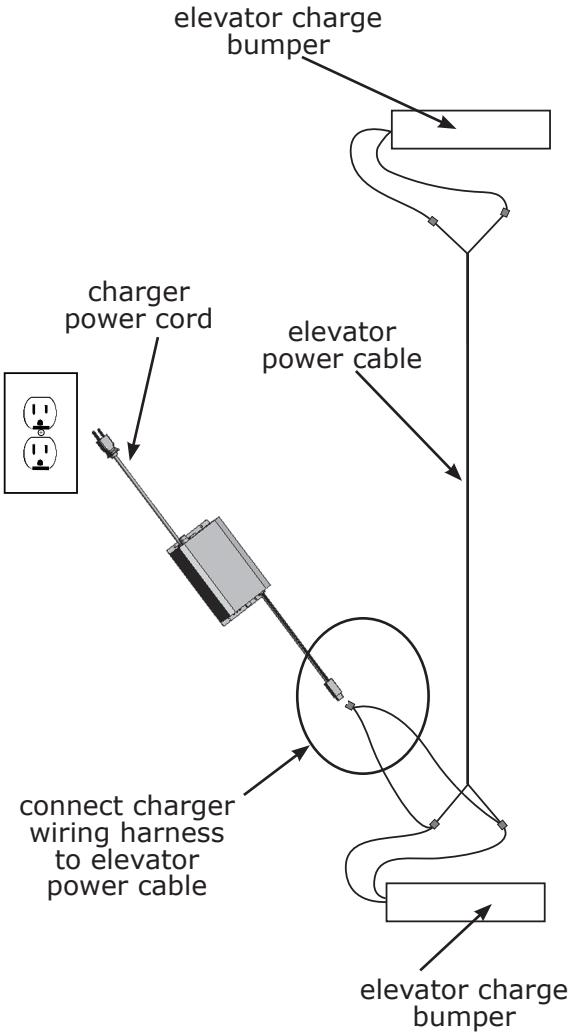
Mounting the battery charger

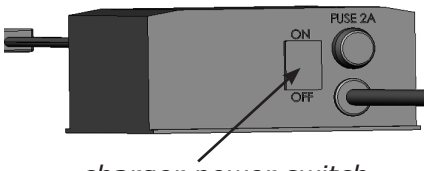


1. Position the charger in a suitable permanent location ***where it will not create a tripping hazard.***
2. Route the battery charger wiring harness along the back side of the rail.
3. Secure this harness to the rail clamps with wire ties.
4. Secure the charger in the chosen location (Step 1) by inserting (2) screws (provided) through the mounting holes in the charger base.

   NOTE: There are (2) mounting holes on each side of the charger base. Choose one of the two on each side.
5. Connect the power cord to the nearest wall or floor outlet.
6. Connect the charger wiring harness to the elevator power cable.
7. Bundle together loose wires.
8. Turn ON the charger power switch.

(continued on next page)


elevator charge bumper
charger power cord
elevator power cable
connect charger wiring harness to elevator power cable
elevator charge bumper



charger power switch

NOTE: If the batteries become discharged, the carriage will move more slowly until the voltage drops to a point where the controller will shut off.

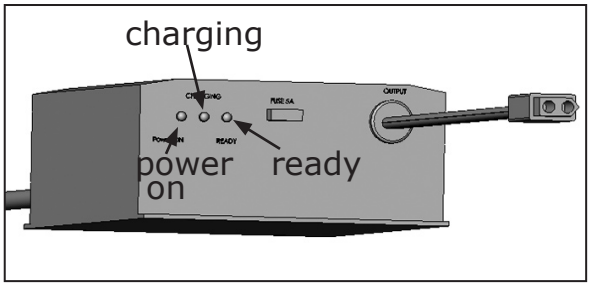
In this event, pause for a moment, then run the carriage "down" until it engages the charge contacts.

Partially charged batteries will run the carriage "down", but not "up".

Confirm that the charger is plugged into a "live" outlet and wait for the batteries to recharge.

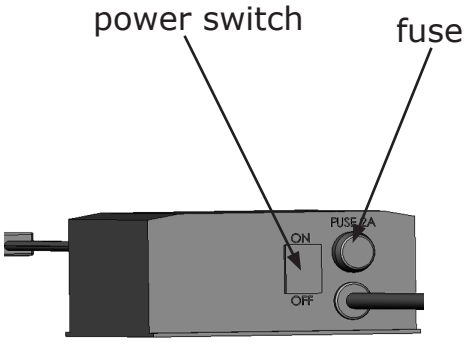
©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

Battery charger LED's



RED	*YELLOW*	*GREEN*	*STATUS*
ON	OFF	OFF	charger not connected to battery (AC power ON, no battery connected)
ON (<5 sec.)	ON (<5 sec.)	ON (<5 sec.)	battery disconnect situation detected (AC power ON, battery disconnect); 5-second delay until yellow and green LED's completely off
ON	ON	OFF	charger at maximum voltage (constant voltage)/ delivering maximum current (constant current)
ON	ON	ON	batteries fully charged
ON	BLINK	OFF	low voltage indication
ON	OFF	FAST BLINK	battery defective or heavily sulfated
ON	BLINK	ON	partially open circuit; bad contact or battery sulfation

Battery Charger Fuse Replacement



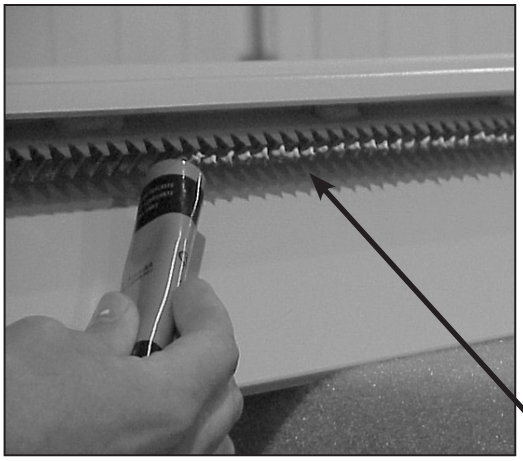
If the charger is subject to a power line surge, the AC input fuse may blow. Refer to the illustration to the left for fuse location.

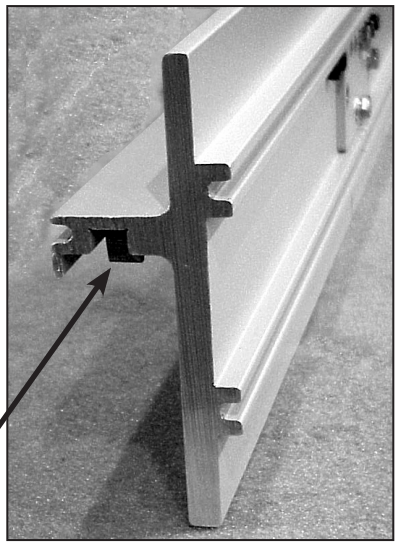
To replace fuse:

1. Turn OFF the battery charger power switch.
2. Remove power cord from wall outlet.
3. Twist the fuseholder cap and pull out to remove the fuse.
4. Replace with the same size and type: BUSS #GSL 2, 5 x 20mm.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

1. Now that the power is connected to the stairway elevator, run the elevator up and down the rail several times.
2. Apply a thin layer of white lithium grease **on the gear rack <u>ONLY</u>**.
3. Clean the rail regularly for optimal performance of the stairway elevator.





Apply thin layer of white lithium grease to ***gear rack only***.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

Testing elevator operation

Important to Know

Direction of travel of the seat/carriage corresponds to the side of the rocker switch depressed.

A slight delay will occur between the time the rocker switch is depressed and the start of carriage movement.

This is normal and is a function of the *soft start* feature of the controller.

The unit should travel noticeably faster going up than down.

Torque Specifications

GRADE 10.9 (Metric) (Roughly equivalent to US Grade 8)		
M8	Grade 10.9	25 lb.-ft
M10	Grade 10.9	47 lb.-ft
M12	Grade 10.9	83 lb.-ft
M14	Grade 10.9	133 lb.-ft

1. Before securing, all clamps and with the seat in the central riding position, use the rocker switch to run carriage/seat assembly completely down and up the rail.
2. Check the seat-to-wall clearance.

   A clearance of 1/2" to 1" (13-25 mm) is acceptable.
3. Repeat the run with the seat in the folded position. If necessary, adjust the rail placement by sliding it closer to, or further from the wall.
4. Make a total of 5 or 6 trial runs to be sure all components function correctly, and that proper seat-to-wall clearance is maintained over the entire length of travel.
5. Install and tighten the screws in the remaining foot clamps, starting at the bottom and working toward to top.

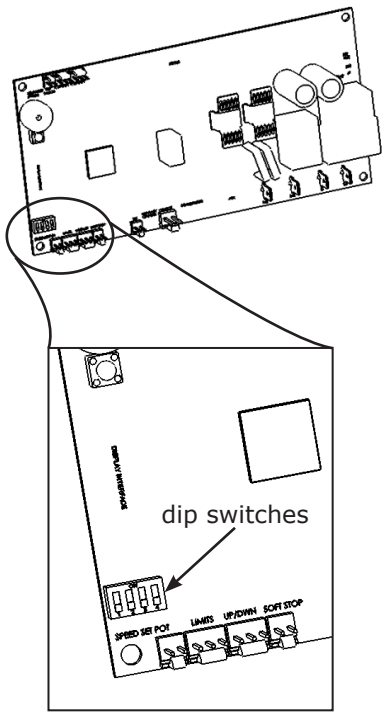
   NOTE: On each clamp, tighten the back foot first!
6. Check tightness of all screws/bolts.
7. Run the carriage/seat assembly up and down the rail to recheck the seat-to-wall clearance, and to verify correct operation of all elevator components.
8. Verify proper operation of the power supply, call/send transmitters, on/off switch, footrest, safety switches, and carriage limit switches.
9. Adjust the seat height, if necessary, to maximize the customer's comfort (see ADJUSTMENTS).
10. Inform the customer of the location of the Operator's Manual. Encourage him/her to become familiar with the contents of the Operator's Manual.
11. ***Train the customer to use the stairway elevator correctly and safely.***

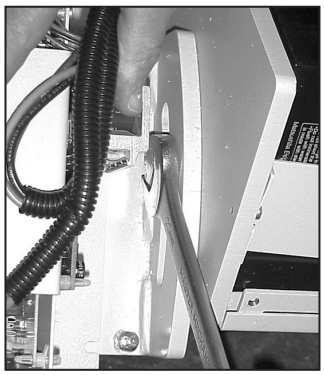
    Remind him/her to always buckle the positioning belt when on board the stairway elevator.

    Be sure to have him/her operate the unit while you are there to answer questions and address concerns.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

CONVERSION TO RIGHT-HAND INSTALLATION





As shipped from the factory, the Electra-Ride™ Elite is set up for left-side installation (**as viewed from the bottom of the stairs**).

To convert the unit for right-side installation:

ELECTRICAL

1. ***Make sure the circuit breaker switch on the rear of the carriage is in the OFF position.***
2. Remove the back carriage cover and the left side cover.
3. Set the No. 3 DIP Switch on the 4-ganged dip switch to the **ON** position.

NOTE: When converting from a left-hand to a right-hand installation (as viewed from the bottom of the stairs), the length of the (3) black, ribbed wire harnesses will increase when you change the angle of the carriage.

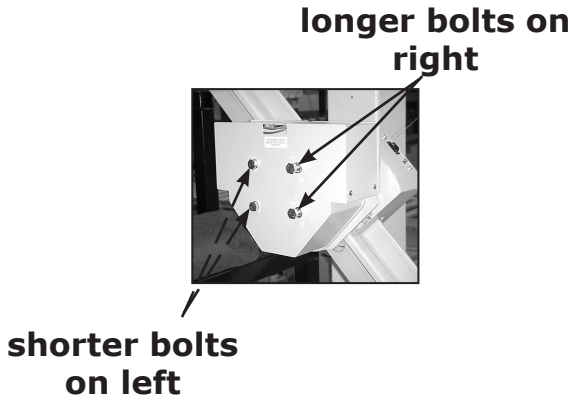
Tuck these harnesses into the carriage.

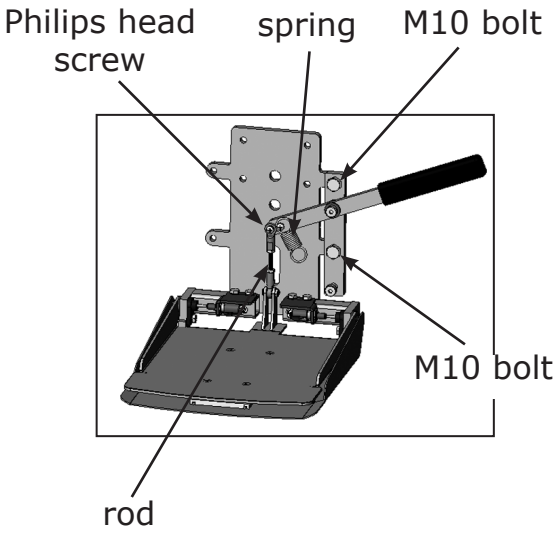
DO NOT bundle them next to the circuit board to avoid contact between the harnesses and board components.

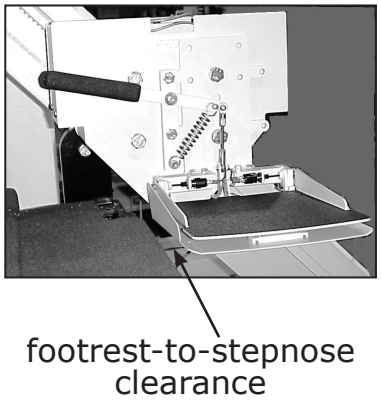
MECHANICAL

4. Loosen (but do not remove) the bottom (M14) carriage bolt.
5. Remove the top (M14) carriage bolt.
6. Apply pressure with your hands to the top of the carriage to pivot it to the opposite side.
7. Reinsert the top (M14) carriage bolt.
8. Tighten the top carriage bolt.
9. Tighten the bottom (M14) carriage bolt.
10. Reinstall back and side carriage covers.
11. On the FRONT of the carriage, remove the **longer** (M14) bolts **ON THE LEFT** and the *shorter* (M14) bolts *ON THE RIGHT.*

right-hand installation







12. Insert the **shorter** bolts **ON THE LEFT,** and the *longer* (M14) bolts *ON THE RIGHT.*

    The bolts should now be on the side opposite the starting location.

13. ***Only tighten the short bolts*** to secure the front cover. *The long bolts are used to fasten the footrest*.

14. On the footrest, while applying downward pressure on the handle, remove the Phillips-head screw attaching the adjusting rod to the handle.

15. Remove the spring from the handle.

16. Remove the (2) M10 bolts securing the bracket to the footrest plate.

17. Swing the handle around so it is on the up side of the staircase.

18. Attach the handle bracket to the footrest plate with the (2) M10 bolts.

19. Reattach the spring.

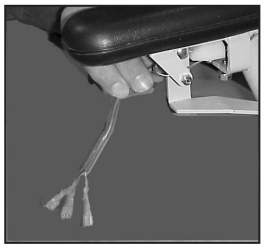
20. Apply downward pressure to the handle while attaching the adjusting rod to the handle with the Phillips-head screw.

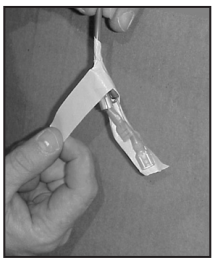
21. Verify clearances, especially the footrest-to-stepnose clearance.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

CONVERSION TO RIGHT-HAND INSTALLATION

Changing the rocker switch to the left arm



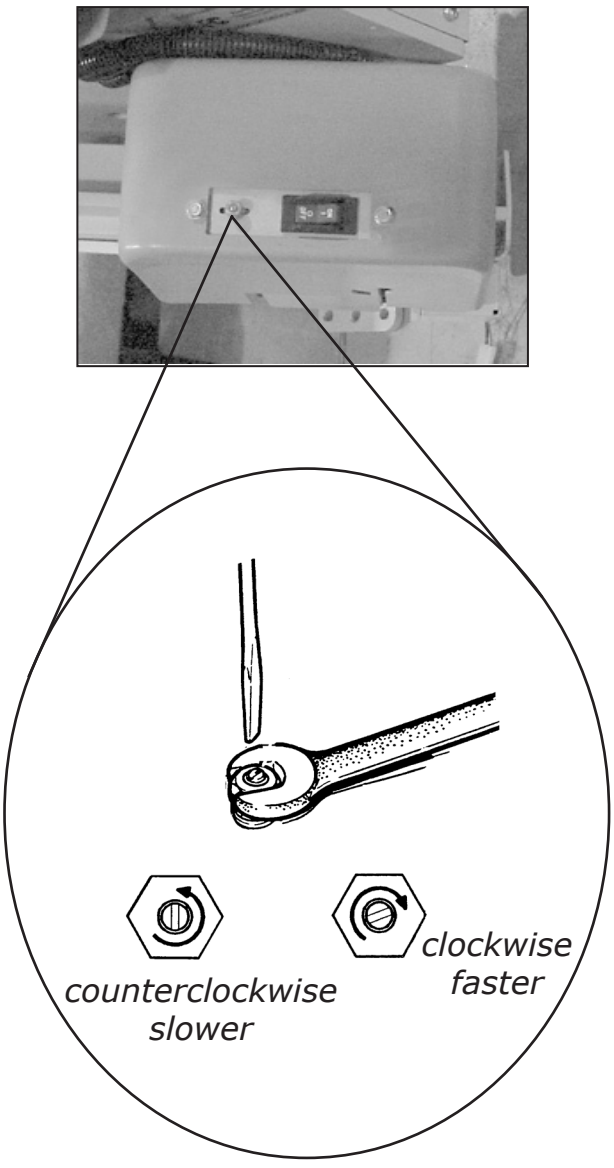


1. Unscrew the (2) black screw bumpers.
2. Remove the seat frame cover.
3. Unplug the rocker switch harness located under the seat frame.
4. Loosen both arm cover screws to remove the covers.
5. With needle-nose pliers, remove the rocker switch harness from the switch.
6. Carefully pull the rocker harness down throught the arm tube.
7. Using masking tape, tape the three connectors IN LINE with each other, in a staggered configuration. This will facilitate feeding the wires through the arm tube.
8. From the bottom of the left arm tube, slide the rocker harness upward. When the taped connectors are showing at the top of the arm tube, pull the wires out to the end of the arm pad using needle-nose pliers.
9. Using a #5 metric Allen wrench:
    - **remove the (2) front** flat head screws on the seat frame, and
    - LOOSEN (but do not remove) the (2) back screws.
10. Tilt back the seat.
11. Swing the small rocker harness (under the seat frame) toward the left-arm side to plug into the harness in the arm tube.
12. CAREFULLY tighten all (4) flat-head screws. Use CAUTION to avoid pinching anywires.
13. Remount the seat frame cover and secure with the 2 black screw bumpers.
14. Plug the rocker harness into the rocker switch.
15. Slide the covers onto both ams.
16. Tighten the screws.

Seat height adjustment

1. Remove all (4) M10 x 20mm bolts.
2. Slide the seat up or down.
3. Line up the holes on the seat post with the holes on the foot-rest mounting plate at the desired height.
4. Reinsert the M10 x 20 mm bolts and corresponding washers.
5. Tighten.

Speed control adjustment



The speed adjustment potentiometer is on the carriage (see left).

To adjust:

1. Loosen the collet nut on the speed control potentiometer approximately one-half turn.
2. Adjust the speed by turning the slotted shaft on the potentiometer.

   clockwise=faster,

   counterclockwise =slower
3. With the customer on the unit make several test runs to arrive at the most to appropriate speed setting.
4. When the speed has been properly set, retighten the collet nut.
5. Recheck the speed.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

MAINTENANCE

General information

RECYCLE BATTERIES IN ACCORDANCE WITH REGULATIONS IN FORCE IN YOUR AREA.

BATTERIES
AND RELATED PARTS
CONTAIN LEAD
WASH HANDS
AFTER HANDLING!
WARNING: Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm.
California Proposition 65 Workplace Warning Sign 1/99

The SRE-2000 is designed to give you many years of reliable service with minimal required maintenance.

To ensure the best service life:

1. Keep the stair rail channel clean and free of debris.
2. Park the carriage at one end of the stair rail so that the batteries charge when not in use.
3. Keep the battery charger plugged into a "live" outlet.
4. Have a qualified service technician clean, check, and grease the unit at least once a year (see maintenance list on next page).

   Gear rack lubrication instructions appear earlier in this manual.

Vacation/long-term storage

If the elevator will remain unused for an extended period of time, turn off the circuit breaker and unplug the charger from the wall outlet.

NOTE: The batteries may need to be recharged before normal use if the elevator remained in the OFF position for an extended period of time.

To recharge, turn on the circuit breaker, reconnect the charger to the wall outlet and wait until the charger LED's indicate that the batteries are fully charged.

YEARLY MAINTENANCE OPERATIONS

- Clean rails, racks and wheels. Regrease.
- Check for dry and/or worn belts. Lubricate.
- Check rail wear.
- Clean charging contacts (both carriage and rail ends) with Scotch Brite®.
- Check battery voltage (load test).
- Check safety switches (footrest, carriage, seat).
- Check armrest switch and keyswitch (if applicable).
- Check battery charger output:
    - Load test using remote controls: check voltage while carriage is traveling up.
    - Test with carriage against contacts.
    - Test with carriage away from contacts.
    - Check contacts and lights.
- Check speed.
- Check seat belt for wear and proper operation.
- Examine exposed wiring. Are there any cuts or abrasions?
- Verify operation of seat swivel mechanism. Does it move easily and lock in place correctly?
- Check that all hardware is properly tightened.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

OVERSPEED

overspeed switch

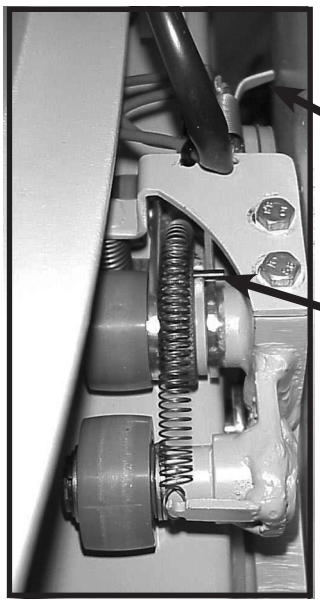
If the overspeed switch trips, **reset two levers: (1) the overspeed lever, and (2) the cam lever**.

See the photos below for set and tripped lever positions.

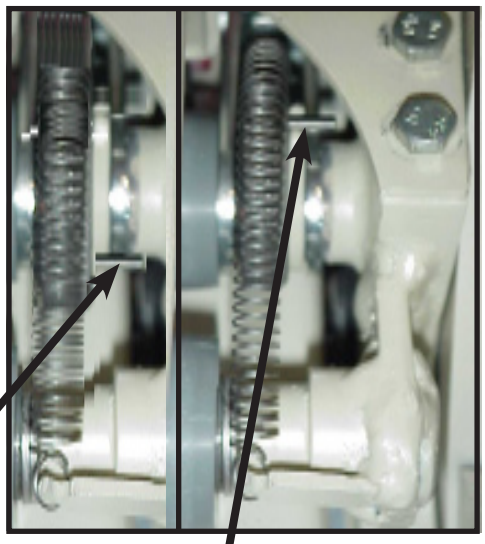
To reset the levers, first rotate overspeed switch lever. While rotating this lever, push in on the wires to engage the overspeed switch. (If the lever is rotated too far, the switch will not be reset.)

Rotate the cam lever just until you feel the switch engage.

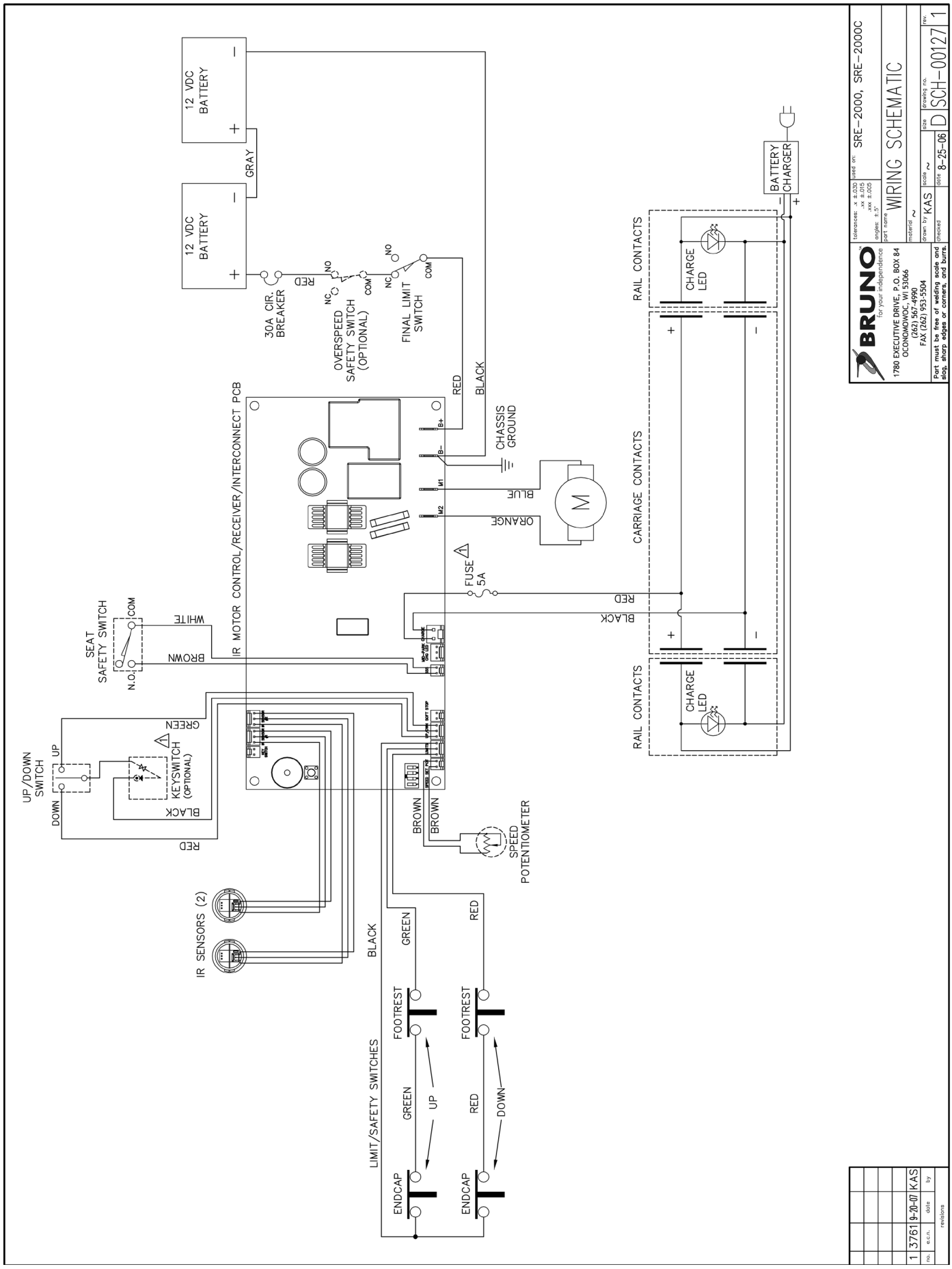
levers to reset if overspeed switch trips



top view



©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®



©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

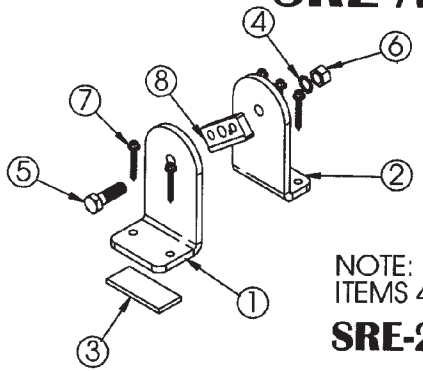
TROUBLESHOOTING

UNIT FAILS TO OPERATE	• Check fuse, replace if necessary. • Check circuit breaker, reset if necessary. • Check battery connections. • Check footrest safety switches to see if one of these limit switches is depressed. Sliding safety tray below footrest should slide freely and not stick in a position which would depress one of the safety switches. • Check for discharged batteries. Battery voltage should be in a range of 16-28 VDC.
UNIT OPERATES SLOWLY, LACKS POWER	• Check for discharged batteries. • Check setting of speed control POTENTIOMETER. • Check for loose connections. • Check to make sure charger is plugged in and working.
CONTROLS OPERATE BACKWARDS AND UNIT GOES "UP" SLOWLY AND "DOWN" FASTER	Unit is not set up for correct stair side operation. Make correct connections according to instructions in the installation manual
UNIT OPERATES ERRATICALLY OR INTERMITTENTLY WITH REMOTE CALL/SEND	• Check all safety mechanisms, including swivel seat safety switch. • Change the delay setting on the receiver board to 900 msec. • Reorient the transmitter (to point directly at the carriage). • Consult your dealer, an experienced technician or call the Bruno Technical Service Department.
UNIT OPERATES ERRATICALLY OR INTERMITTENTLY WITH A RIDER USING THE ARM-REST MOUNTED CONTROL SWITCH	• Check swivel seat safety switch. • Check to see that the footrest safety tray is not dragging on the stair nosing or hitting debris on the stairs, if necessary, reposition the stair rail mounting brackets to correct the problem. • Check the rail for debris that may bump safety switches (footrest and carriage panels).

UNIT WILL NOT OPERATE UNLESS THE SEAT IS POSITIONED SO THAT IT FACES THE OPEN SIDE OF THE STAIRS	• This is correct lift operation, a safety switch in the seat swivel prevents the unit from operating with the seat out of the correct operating position.
UNIT WILL NOT OPERATE WITH CALL / SEND REMOTE	• Check batteries in remote call / send unit. • Transmitters must be `learned' to receiver.
UNIT DOES NOT SHUT OFF WHEN IT HITS THE BUMPER AT THE END OF THE RAIL	• Connections were not made correctly when changing unit from left-side to right-side operation. Consult installation manual for diagram of correct wiring configuration. • Check limit switch in carriage assembly for proper operation.
ROUGH OR CHATTERING RIDE	Wipe down rail.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

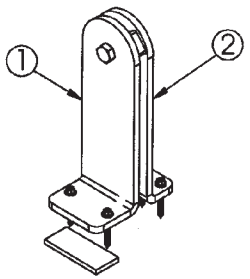
SRE ALUMINUM RAIL CLAMP ASSEMBLIES



NOTE:
ITEMS 4-7 MAKE UP SRE-K-2010

SRE-20273

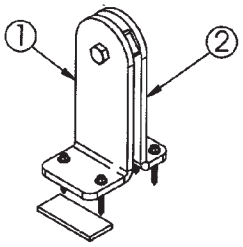
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	CRE-00549CP	'B' FRONT CLAMP
2	1	CRE-00555CP	'B' REAR CLAMP
3	1	CRE-00604	CLAMP SHIM
4	1	METW-14001	M14 EXTERNAL TOOTH WASHER
5	1	MHCS-14003	M14 X 2 X 45mm LG HEX HEAD CAP SCREW
6	1	MNPL-14200	M14 X 2 HEX NUT (PLATED)
7	5	MSSM-63001	M6.3 X 50mm LG SLOTTED HEX HEAD SHEET METAL SCREW
8	1	SRE-20272	CLAMP SPACER



NOTE:
ITEMS 4-7 MAKE UP SRE-K-2010

SRE-20275

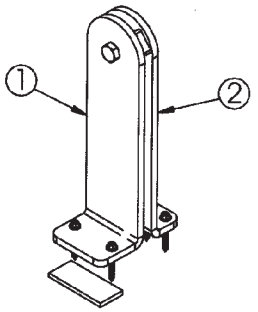
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	CRE-00551CP	'D' FRONT CLAMP
2	1	CRE-00557CP	'D' REAR CLAMP
3	1	CRE-00604	CLAMP SHIM
4	1	METW-14001	M14 EXTERNAL TOOTH WASHER
5	1	MHCS-14003	M14 X 2 X 45mm LG HEX HEAD CAP SCREW
6	1	MNPL-14200	M14 X 2 HEX NUT (PLATED)
7	5	MSSM-63001	M6.3 X 50mm LG SLOTTED HEX HEAD SHEET METAL SCREW
8	1	SRE-20272	CLAMP SPACER



NOTE:
ITEMS 4-7 MAKE UP SRE-K-2010

SRE-20274

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	CRE-00550CP	'C' FRONT CLAMP
2	1	CRE-00556CP	'C' REAR CLAMP
3	1	CRE-00604	CLAMP SHIM
4	1	METW-14001	M14 EXTERNAL TOOTH WASHER
5	1	MHCS-14003	M14 X 2 X 45mm LG HEX HEAD CAP SCREW
6	1	MNPL-14200	M14 X 2 HEX NUT (PLATED)
7	5	MSSM-63001	M6.3 X 50mm LG SLOTTED HEX HEAD SHEET METAL SCREW
8	1	SRE-20272	CLAMP SPACER



NOTE:
ITEMS 4-7 MAKE UP SRE-K-2010

SRE-20276

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	CRE-00552	'E' FRONT CLAMP
2	1	CRE-00558	'E' REAR CLAMP
3	1	CRE-00604	CLAMP SHIM
4	1	METW-14001	M14 EXTERNAL TOOTH WASHER
5	1	MHCS-14003	M14 X 2 X 45mm LG HEX HEAD CAP SCREW
6	1	MNPL-14200	M14 X 2 HEX NUT (PLATED)
7	5	MSSM-63001	M6.3 X 50mm LG SLOTTED HEX HEAD SHEET METAL SCREW
8	1	SRE-20272	CLAMP SPACER

SRE-20273 THRU 20276

REV. 0 (ISSUED)(2/6/04)(JWV)

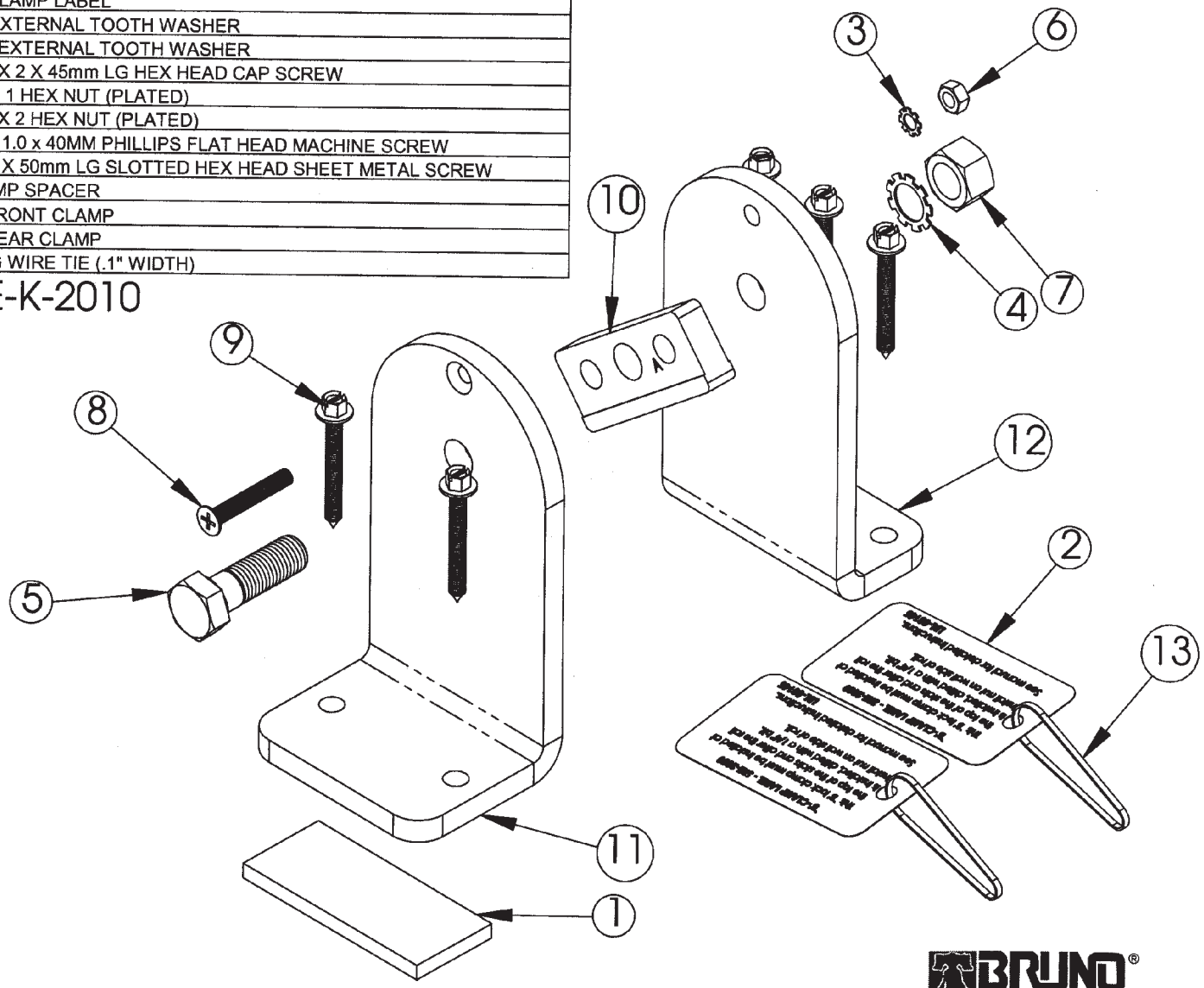
BRUNO® INDEPENDENT LIVING AIDS
ISO 9001 CERTIFIED

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

`B' LOCK CLAMP ASSEMBLY

	ITEM NO.	QTY.	PART NO.	DESCRIPTION
	1	1	CRE-00604	CLAMP SHIM
	2	2	LBL-00145	`B'-CLAMP LABEL
	3	1	METW-06001	M6 EXTERNAL TOOTH WASHER
*	4	1	METW-14001	M14 EXTERNAL TOOTH WASHER
*	5	1	MHCS-14003	M14 X 2 X 45mm LG HEX HEAD CAP SCREW
	6	1	MNPL-06100	M6 X 1 HEX NUT (PLATED)
*	7	1	MNPL-14200	M14 X 2 HEX NUT (PLATED)
	8	1	MPFM-06002	M6 x 1.0 x 40MM PHILLIPS FLAT HEAD MACHINE SCREW
*	9	5	MSSM-63001	M6.3 X 50mm LG SLOTTED HEX HEAD SHEET METAL SCREW
	10	1	SRE-20272	CLAMP SPACER
	11	1	SRE-20184	`B' FRONT CLAMP
	12	1	SRE-20185	`B' REAR CLAMP
	13	2	WRT-10001	4" LG WIRE TIE (.1" WIDTH)

* ITEMS ARE IN SRE-K-2010



SRE-20309

REV. 0 (ISSUED)(3/4/04)(JWV)

BRUNO INDEPENDENT LIVING AIDS
ISO 9001 CERTIFIED

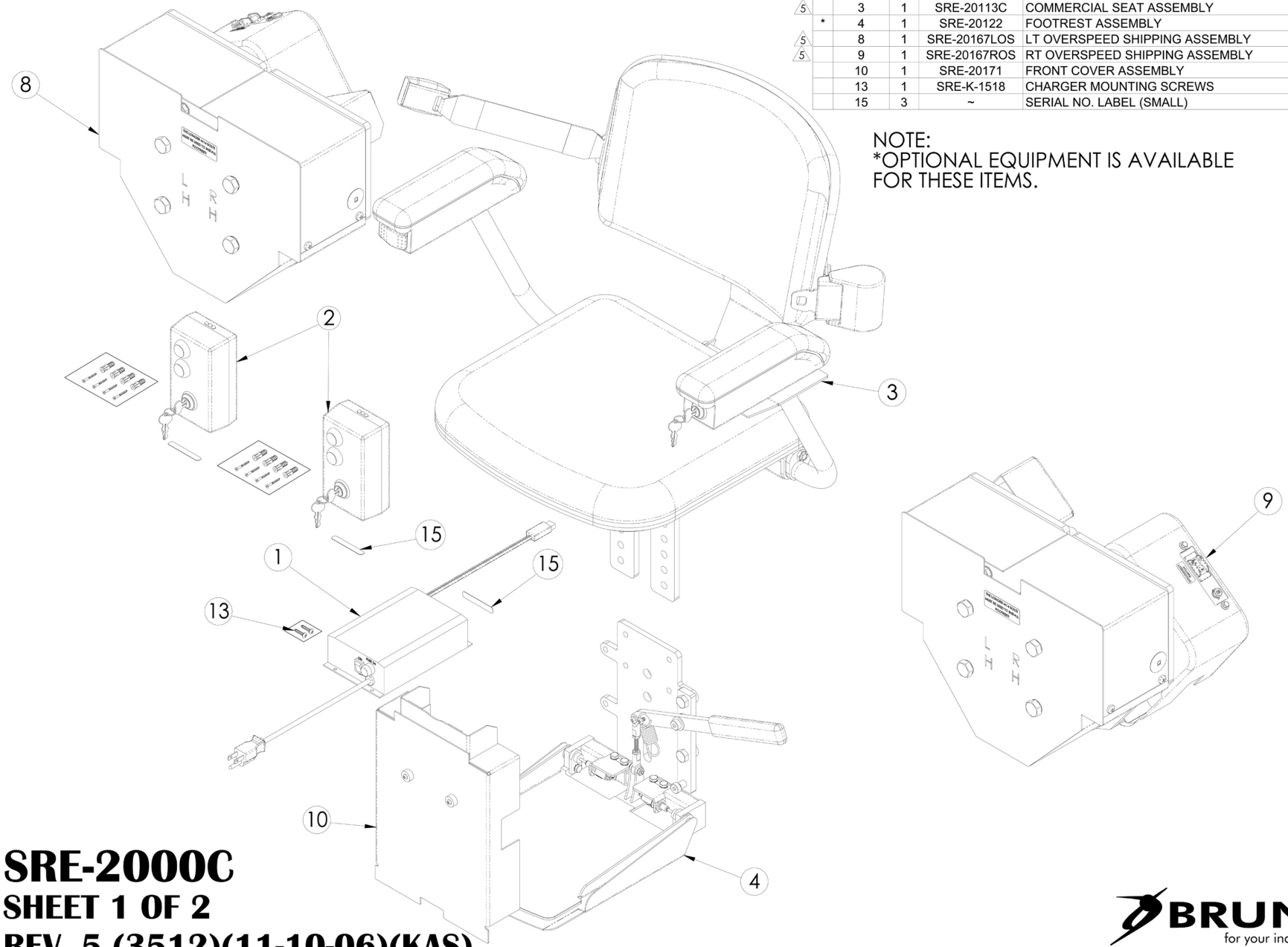
EXPLODED VIEWS/BILLS OF MATERIALS

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

COMMERCIAL 'ELECTRA-RIDE' ELITE ASSEMBLY

	ITEM NO.	QTY.	PART NO.	DESCRIPTION
	1	1	BCR-24018	24VDC 2A CLIPLIGHT SWITCHMODE BATTERY CHARGER
5	2	2	SRE-00923A	IR TRANSMITTER/HDWR (KEYED)
5	3	1	SRE-20113C	COMMERCIAL SEAT ASSEMBLY
*	4	1	SRE-20122	FOOTREST ASSEMBLY
5	8	1	SRE-20167LOS	LT OVERSPEED SHIPPING ASSEMBLY
5	9	1	SRE-20167ROS	RT OVERSPEED SHIPPING ASSEMBLY
	10	1	SRE-20171	FRONT COVER ASSEMBLY
	13	1	SRE-K-1518	CHARGER MOUNTING SCREWS
	15	3	~	SERIAL NO. LABEL (SMALL)

NOTE:
*OPTIONAL EQUIPMENT IS AVAILABLE FOR THESE ITEMS.



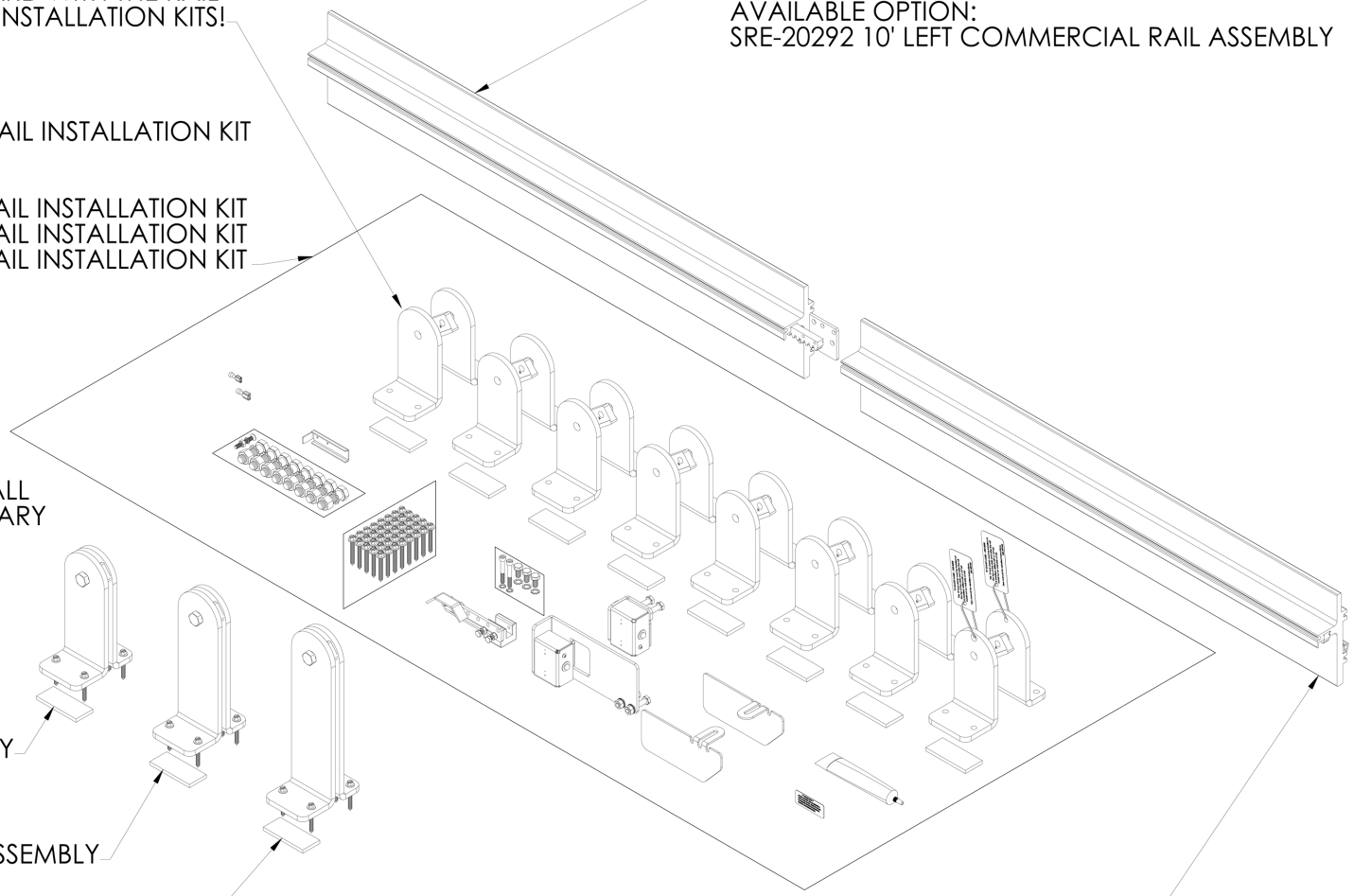
SRE-2000C
SHEET 1 OF 2
REV. 5 (3512)(11-10-06)(KAS)

BRUNO
for your independence

©2006 Bruno Independent Living Aids, Inc.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

COMMERCIAL 'ELECTRA-RIDE' ELITE ASSEMBLY


`B'-SIZE CLAMPS ARE INCLUDED AS STANDARD WITH THE RAIL INSTALLATION KITS!
SRE-20290 8' LEFT COMMERCIAL RAIL ASSEMBLY
AVAILABLE OPTION:
SRE-20292 10' LEFT COMMERCIAL RAIL ASSEMBLY
SRE-K 2116 16' COMMERCIAL RAIL INSTALLATION KIT
AVAILABLE OPTIONS:
SRE-K-2120 20' COMMERCIAL RAIL INSTALLATION KIT
SRE-K-2124 24' COMMERCIAL RAIL INSTALLATION KIT
SRE-K-2128 28' COMMERCIAL RAIL INSTALLATION KIT
NOTE:
USAGE & QUANTITIES OF TALL CLAMP ASSEMBLIES WILL VARY
OPTIONAL:
SRE-20274 'C' CLAMP ASSEMBLY
OPTIONAL:
SRE-20275 'D' CLAMP ASSEMBLY
OPTIONAL:
SRE-20275 'E' CLAMP ASSEMBLY
SRE-20291 8' RIGHT COMMERCIAL RAIL ASSEMBLY
AVAILABLE OPTION:
SRE-20293 10' RIGHT COMMERCIAL RAIL ASSEMBLY

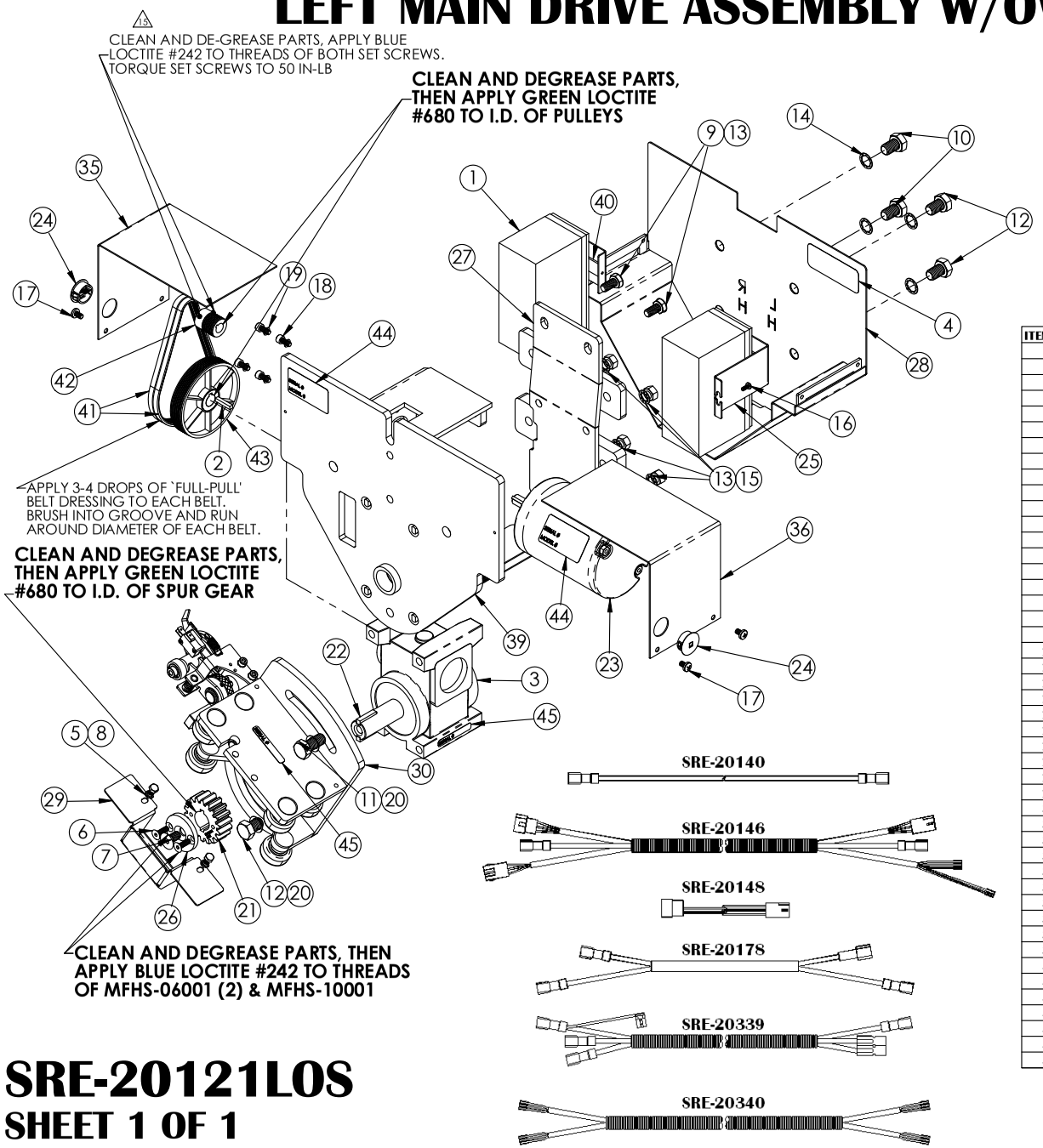
SRE-2000C
SHEET 2 OF 2
REV. 5 (3512)(11-10-06)(KAS)

BRUNO
for your independence

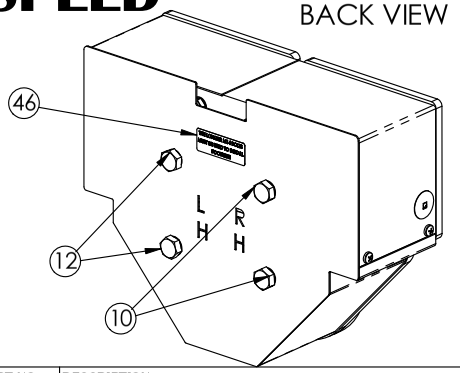
©2006 Bruno Independent Living Aids, Inc.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

LEFT MAIN DRIVE ASSEMBLY W/OVERSPEED


15
CLEAN AND DE-GREASE PARTS, APPLY BLUE LOCTITE #242 TO THREADS OF BOTH SET SCREWS. TORQUE SET SCREWS TO 50 IN-LB
CLEAN AND DEGREASE PARTS, THEN APPLY GREEN LOCTITE #680 TO I.D. OF PULLEYS
APPLY 3-4 DROPS OF `FULL-PULL' BELT DRESSING TO EACH BELT. BRUSH INTO GROOVE AND RUN AROUND DIAMETER OF EACH BELT.
CLEAN AND DEGREASE PARTS, THEN APPLY GREEN LOCTITE #680 TO I.D. OF SPUR GEAR
CLEAN AND DEGREASE PARTS, THEN APPLY BLUE LOCTITE #242 TO THREADS OF MFHS-06001 (2) & MFHS-10001
RH
LH

BACK VIEW



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	2	BTR-12002	12V 6/6.5/7 AH BATTERY (MAINTENANCE FREE)
2	1	CRE-00102	3/16" SQ KEY (1" LG)
3	1	CRE-00222	GEARBOX
4	1	DEC-00122	PATENT DECAL
5	2	METW-06001	M6 EXTERNAL TOOTH WASHER
6	2	MFHS-06001	M6 X 1 X 20mm LG FLAT SOCKET HEAD CAP SCREW
7	1	MFHS-10001	M10 X 1.5 X 20mm LG FLAT HEAD SOCKET CAP SCREW
8	2	MHCS-06002	M6 X 1 X 10mm LG HEX HEAD CAP SCREW
9	2	MHCS-10018	M10 X 1.5 X 20mm LG HEX HEAD CAP SCREW
10	2	MHCS-14001	M14 X 2 X 20mm LG HEX HEAD CAP SCREW
11	1	MHCS-14002	M14 X 2 X 30mm LG HEX HEAD CAP SCREW
12	3	MHCS-14004	M14 X 2 X 25mm LG HEX HEAD CAP SCREW
13	6	MITW-10001	M10 INTERNAL TOOTH WASHER
14	4	MITW-14001	M14 INTERNAL TOOTH WASHER
15	4	MNPL-10150	M10 X 1.5 HEX NUT (PLATED)
16	2	MPLM-04005	M4 X .7 X 10mm LG PHILLIPS FILLISTER HEAD MACHINE
17	4	MPPM-06002	M6 X 1 X 10mm LG PHILLIPS PAN HEAD MACHINE SCREW
18	4	MSHS-06001	M6 X 1 X 14mm LG SOCKET HEAD CAP SCREW
19	4	MSLW-06001	6MM SAFETY WASHER (6.5MM X 10MM)
20	2	MSLW-14001	M14 SAFETY LOCK WASHER
21	1	SPG-08204	SPUR GEAR
22	2	SRE-00181	1/4" SQ KEY (1.13" LG)
23	1	SRE-00634	MOTOR ASSEMBLY (1/2" SHAFT)
24	2	SRE-00941	IR SENSOR ASSEMBLY
25	2	SRE-20032	BATTERY HOLDER
26	1	SRE-20055	GEAR RETAINER
27	1	SRE-20062	SUBPLATE WELDMENT
28	1	SRE-20067	MAIN COVER WELDMENT
29	1	SRE-20096	GEAR SHROUD
30	1	SRE-20125L	LEFT OVERSPEED CARRIAGE SUB ASSEMBLY
31	1	SRE-20140	BATTERY JUMPER
32	1	SRE-20146	CARRIAGE CONTROL HARNESS
33	1	SRE-20148	INSTALLATION JUMPER
34	1	SRE-20178	OVERSPEED HARNESS
35	1	SRE-20263L	LEFT TOP COVER w/IR RECEIVER HOLES
36	1	SRE-20263R	RIGHT TOP COVER w/IR RECEIVER HOLES
37	1	SRE-20339	BATTERY/MOTOR HARNESS
38	1	SRE-20340	IR SENSOR HARNESS ASSEMBLY (2000)
39	1	SRE-20343	SUPPORT PLATE WELDMENT
40	2	TAP-75000	2" LG 3/4" WIDE DOUBLE COATED ACRYLIC FOAM TAPE
41	2	VBL-17501	17.5" J3 POLY-RIB BELT
42	1	VPY-10003	Ø1" 7 GROOVE `J'-POLY V PULLEY
43	1	VPY-40002	7 GROOVE `J'-POLY V PULLEY
44	2	~	SERIAL NO. LABEL (LARGE)
45	2	~	SERIAL NO. LABEL (SMALL)
46	1	~	INSTRUCTION DECAL

SRE-20121LOS

SHEET 1 OF 1

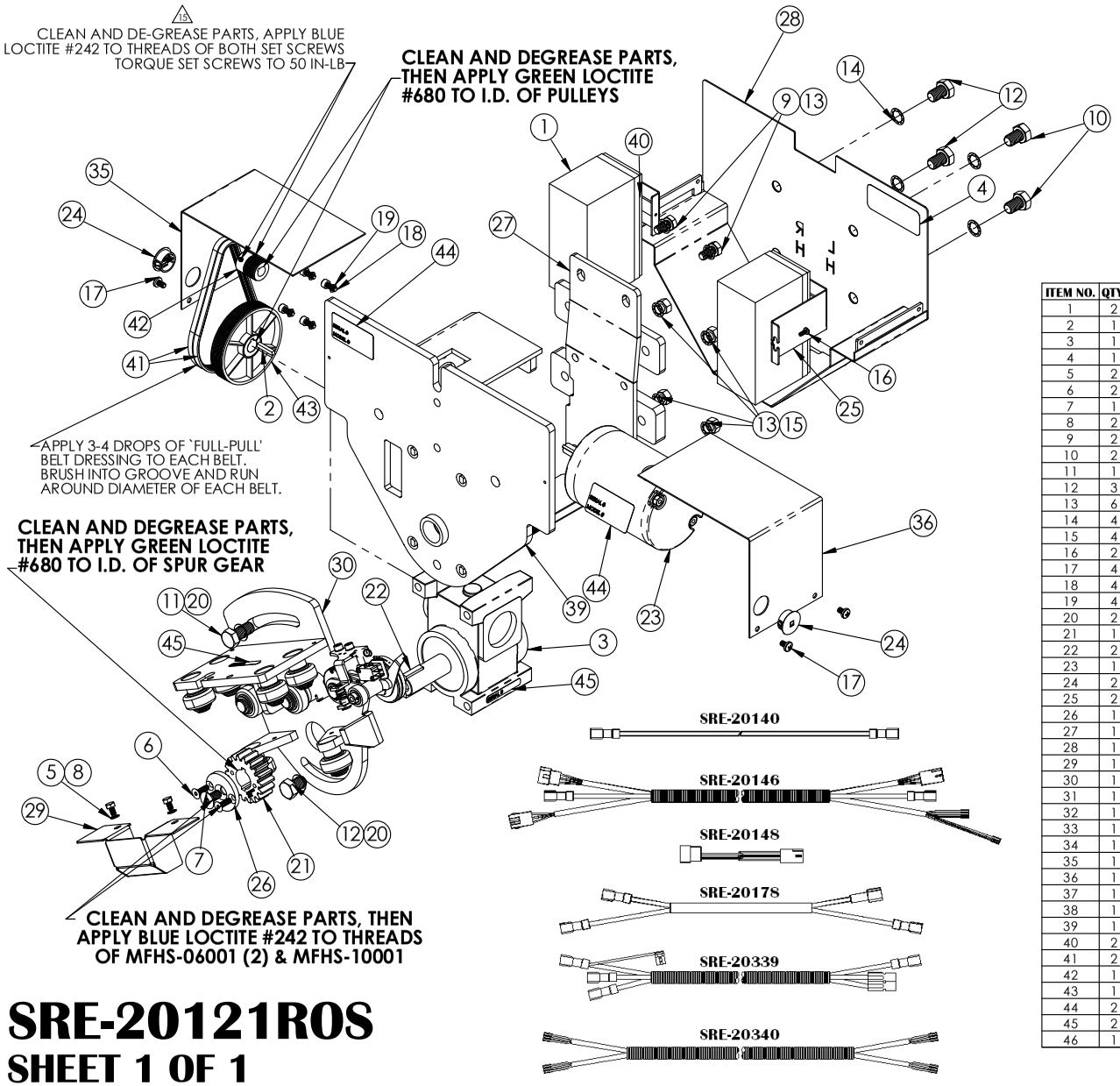
REV. 15 (3791)(10/3/07)(JDE)

BRUNO
for your independence

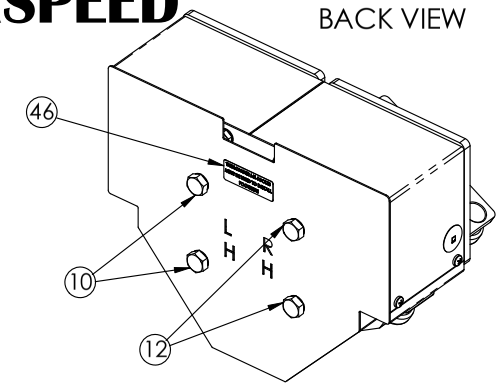
©2007 Bruno Independent Living Aids, Inc.

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

RIGHT MAIN DRIVE ASSEMBLY W/OVERSPEED


CLEAN AND DE-GREASE PARTS, APPLY BLUE LOCTITE #242 TO THREADS OF BOTH SET SCREWS TORQUE SET SCREWS TO 50 IN-LB
CLEAN AND DEGREASE PARTS, THEN APPLY GREEN LOCTITE #680 TO I.D. OF PULLEYS
APPLY 3-4 DROPS OF `FULL-PULL' BELT DRESSING TO EACH BELT. BRUSH INTO GROOVE AND RUN AROUND DIAMETER OF EACH BELT.
CLEAN AND DEGREASE PARTS, THEN APPLY GREEN LOCTITE #680 TO I.D. OF SPUR GEAR
CLEAN AND DEGREASE PARTS, THEN APPLY BLUE LOCTITE #242 TO THREADS OF MFHS-06001 (2) & MFHS-10001
SRE-20140
SRE-20146
SRE-20148
SRE-20178
SRE-20339
SRE-20340

BACK VIEW



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	2	BTR-12002	12V 6/6.5/7 AH BATTERY (MAINTENANCE FREE)
2	1	CRE-00102	3/16" SQ KEY (1" LG)
3	1	CRE-00222	GEARBOX
4	1	DEC-00122	PATENT DECAL
5	2	METW-06001	M6 EXTERNAL TOOTH WASHER
6	2	MFHS-06001	M6 X 1 X 20mm LG FLAT SOCKET HEAD CAP SCREW
7	1	MFHS-10001	M10 X 1.5 X 20mm LG FLAT HEAD SOCKET CAP SCREW
8	2	MHCS-06002	M6 X 1 X 10mm LG HEX HEAD CAP SCREW
9	2	MHCS-10018	M10 X 1.5 X 20mm LG HEX HEAD CAP SCREW
10	2	MHCS-14001	M14 X 2 X 20mm LG HEX HEAD CAP SCREW
11	1	MHCS-14002	M14 X 2 X 30mm LG HEX HEAD CAP SCREW
12	3	MHCS-14004	M14 X 2 X 25mm LG HEX HEAD CAP SCREW
13	6	MITW-10001	M10 INTERNAL TOOTH WASHER
14	4	MITW-14001	M14 INTERNAL TOOTH WASHER
15	4	MNPL-10150	M10 X 1.5 HEX NUT (PLATED)
16	2	MPLM-04005	M4 X .7 X 10mm LG PHILLIPS FILLISTER HEAD MACHINE
17	4	MPPM-06002	M6 X 1 X 10mm LG PHILLIPS PAN HEAD MACHINE SCREW
18	4	MSHS-06001	M6 X 1 X 14mm LG SOCKET HEAD CAP SCREW
19	4	MSLW-06001	6MM SAFETY WASHER (6.5MM X 10MM)
20	2	MSLW-14001	M14 SAFETY LOCK WASHER
21	1	SPG-08204	SPUR GEAR
22	2	SRE-00181	1/4" SQ KEY (1.13" LG)
23	1	SRE-00634	MOTOR ASSEMBLY (1/2" SHAFT)
24	2	SRE-00941	IR SENSOR ASSEMBLY
25	2	SRE-20032	BATTERY HOLDER
26	1	SRE-20055	GEAR RETAINER
27	1	SRE-20062	SUBPLATE WELDMENT
28	1	SRE-20067	MAIN COVER WELDMENT
29	1	SRE-20096	GEAR SHROUD
30	1	SRE-20125R	RIGHT OVERSPEED CARRIAGE SUB ASSEMBLY
31	1	SRE-20140	BATTERY JUMPER
32	1	SRE-20146	CARRIAGE CONTROL HARNESS
33	1	SRE-20148	INSTALLATION JUMPER
34	1	SRE-20178	OVERSPEED HARNESS
35	1	SRE-20263L	LEFT TOP COVER w/IR RECEIVER HOLES
36	1	SRE-20263R	RIGHT TOP COVER w/IR RECEIVER HOLES
37	1	SRE-20339	BATTERY/MOTOR HARNESS
38	1	SRE-20340	IR SENSOR HARNESS ASSEMBLY (2000)
39	1	SRE-20343	SUPPORT PLATE WELDMENT
40	2	TAP-75000	2" LG 3/4" WIDE DOUBLE COATED ACRYLIC FOAM TAPE
41	2	VBL-17501	17.5" J3 POLY-RIB BELT
42	1	VPY-10003	Ø1" 7 GROOVE `J'-POLY V PULLEY
43	1	VPY-40002	7 GROOVE `J'-POLY V PULLEY
44	2	~	SERIAL NO. LABEL (LARGE)
45	2	~	SERIAL NO. LABEL (SMALL)
46	1	~	INSTRUCTION DECAL

SRE-20121ROS
SHEET 1 OF 1
REV. 15 (3791)(10/3/07)(JDE)

BRUNO for your independence

©2007 Bruno Independent Living Aids, Inc.

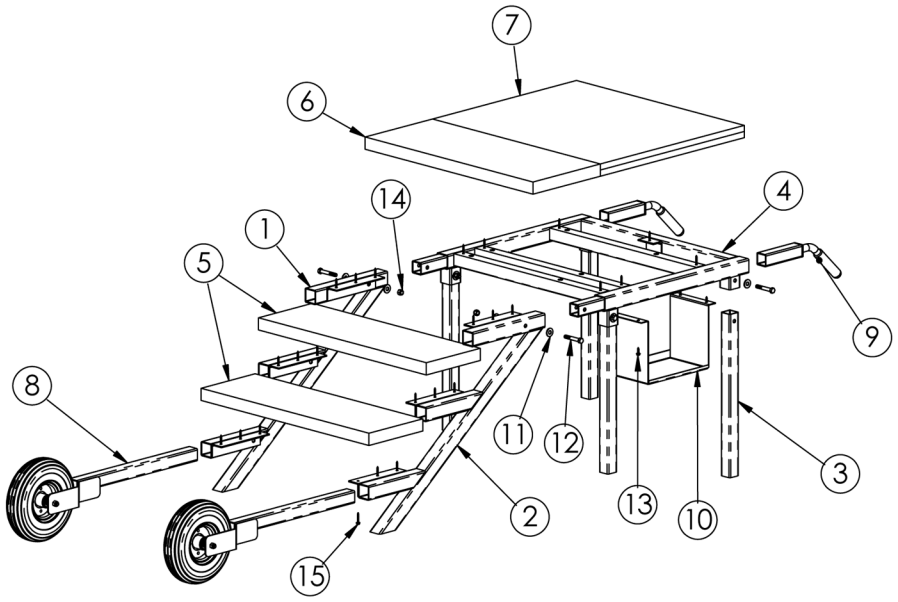
©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

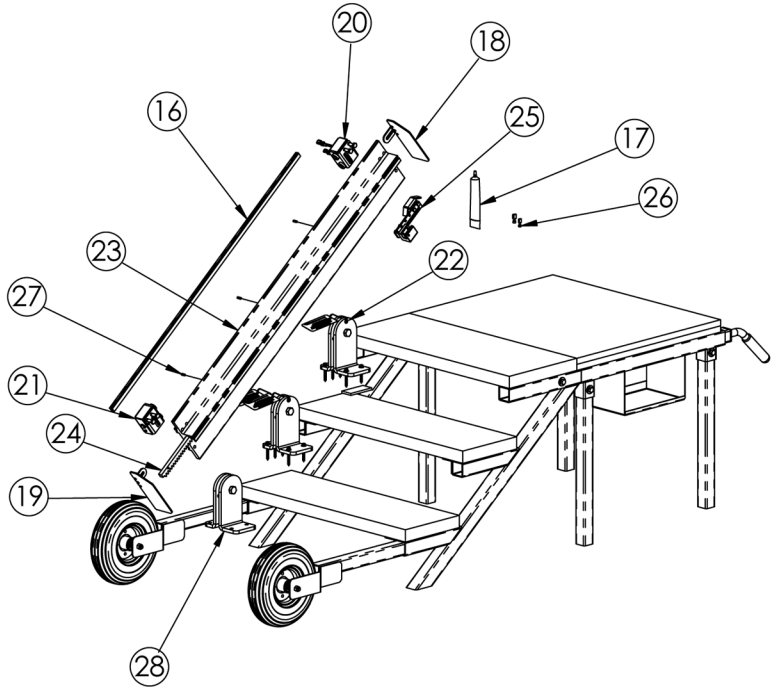
SRE-2002 ROLLING DISPLAY w/44" RAIL

ITEM NO.	QTY	PART NO.	DESCRIPTION
1	1	DSP-00047L	STEP SUPPORT WELDMENT LEFT
2	1	DSP-00047R	STEP SUPPORT WELDMENT RIGHT
3	4	DSP-00052	20" VERTICAL SUPPORT TUBE
4	1	DSP-00073	PLATFORM WELDMENT
5	2	DSP-00078	28" DISPLAY CARPETED STEP
6	1	DSP-00080	28" DISPLAY CARPETED TOP STEP
7	1	DSP-00081	28" CARPETED DISPLAY PLATFORM
8	2	DSP-00085	WHEEL SUPPORT ASSEMBLY
9	2	DSP-00096	HANDLE ASSEMBLY
10	1	DSP-00120	BATTERY CHARGER MOUNTING BRACKET
11	12	FSW-38001	3/8" FLAT WASHER
12	6	HCS-38609	3/8-16 X 2.5" LG HEX HEAD CAP SCREW
13	4	MSSM-55001	M5.5 X 19mm LG SLOTTED HEX HEAD SHEET METAL SCREW
14	6	NSN-38161	3/8-16 NYLON INSERT LOCK NUT
15	25	SHT-12101	#12-11 X 1.25" SLOTTED HEX HEAD SELF-TAPPING SCREW

NOTE: HARDWARE LISTED MAKES UP DSP-K-1525

ITEM NO.	QTY	PART NO.	DESCRIPTION
16	40"	CCL-00106	40" LG HARNESS CHANNEL
17	1	LUB-00102	LUBRI-PLATE 1.75 OZ. TUBE
18	1	SRE-20281L	LEFT END CAP
6 19	1	SRE-20281R	RIGHT END CAP
20	1	SRE-20286	BUMPER ASSEMBLY (#1)
21	1	SRE-20287	BUMPER ASSEMBLY (#2)
22	2	SRE-20309	`B' LOCK CLAMP ASSEMBLY
23	1	SRE-20310	44" DISPLAY RAIL
6 24	1	SRE-20311	8 PITCH DISPLAY GEAR RACK (40" LG)
25	1	SRE-K-2039	FINAL LIMIT SWITCH RAMP KIT
26	1	SRE-K-2044	4' RAIL ELECTRICAL PARTS KIT
27	3	MSSS-05002	
28	1	SRE ALUMINUM RAIL CLAMP ASSEMBLIES	





DSP-A-2002

SHEET 1 OF 1

REV. 6 (3432)(8-31-06)(RJH)

EXPLODED VIEWS/BILLS OF MATERIALS

©2007,2001 BRUNO INDEPENDENT LIVING AIDS, INC.®

©2006 Bruno Independent Living Aids, Inc.

FIVE YEAR MAJOR COMPONENTS WARRANTY
TWO YEAR LIMITED WARRANTY
for
Bruno Stairlifts

Bruno Independent Living Aids, Inc. ("Bruno"), warrants to the original purchaser of a Bruno Stairlift that the Bruno Stairlift is free from defects in material and workmanship for a period of two years from date of purchase. In addition, Bruno warrants that the motor, gear box and rail (the "Major Components") will be free from defects in materials and workmanship for a period of five years from the date of purchase.

The exclusive remedy for a defect in a Bruno Stairlift shall be the repair or replacement, at the option of Bruno, of the defective part or component. After the first 30 days of this warranty, only parts and components are covered. This warranty does not cover labor and other services after the initial 30 days. If repair or replacement of a Bruno Stairlift is not commercially practical or cannot be timely made, Bruno may elect to refund the purchase price of the Bruno Stairlift instead of repairing or replacing the Bruno Stairlift.

IN NO EVENT SHALL BRUNO BE RESPONSIBLE FOR INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER SUCH DAMAGES ARISE FROM CLAIMS BASED ON CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR PRODUCT LIABILITY. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

ALL IMPLIED WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN THEIR DURATION TO THE LENGTH OF THE WARRANTY STATED ABOVE FOR THE AFFECTED COMPONENT. Some states do not allow limitations on how long an implied warranty lasts so the above limitation may not apply to you.

To obtain warranty service, you must follow these procedures:

1. Obtain return authorization by calling your local Bruno dealer;

2. Return the Bruno Stairlift, freight prepaid, to the address provided by your Bruno dealer or Bruno with proof of purchase indicating the date purchased.

Bruno will pay for shipping back to the purchaser within the continental United States and Canada if a defect in material or workmanship is discovered. Return freight and repair charges will be the responsibility of the purchaser if the problem is not covered by warranty.

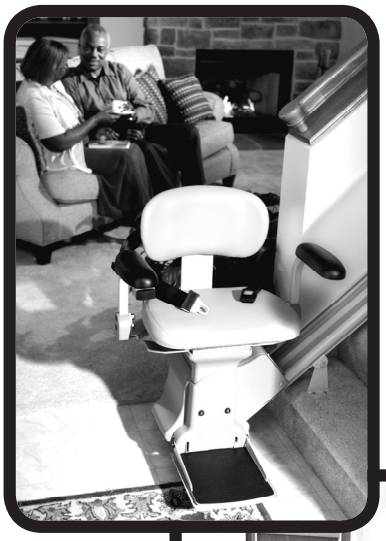
This warranty does not cover damage or failure caused by misuse, abuse, accidents, physical damage, modifications not made by Bruno, damage in shipment, or repairs undertaken by anyone other than Bruno factory employees or authorized distributors. The "original purchaser" of a Bruno Stairlift that is leased or rented shall be the person or entity acting as the lessee or rental provider.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Bruno specifically does not authorize any person to extend the time or scope of this warranty.

For further information regarding this limited warranty, please contact Bruno by calling 1-800-882-8183 or writing to Bruno at the following address:

Bruno Independent Living Aids, Inc.®
Attention: Service Department
1780 Executive Drive, Post Office Box 84
Oconomowoc, WI 53066 USA

First in Performance. Built to Last!



Straight & Custom Curved Rail Stairlifts

Over 25 Different Vehicle Lift Solutions

Vertical Platform Lift

Turning Automotive Seating

BRUNO™

for your independence

Bruno Independent Living Aids, Inc®

1780 Executive Drive, P.O. Box 84, Oconomowoc, WI 53066

262-567-4990 • FAX: 262-953-5501 • www.bruno.com

©2006 Bruno Independent Living Aids, Inc.® All illustrations and specifications in this brochure are based on the latest product information available at the time of publication. Bruno Independent Living Aids, Inc®. reserves the right to make changes at any time without notice. Manual Back Cover 8/06-2.

P/N 2000 COM I